

*International Journal of Impotence Research* (2002) 14, Suppl 4, S68 – S78. doi:10.1038/sj.ijir.3900961

#### P-126

### Fibrosis of the Cavernous Body of Penis Resulting from Papaverine Injection is a Contradiction to Hydroflex Inflatable Penile Implant

*M. C. Vargas, Brazil*

Two patients who had self-injected papaverine presented priapism. Following the usual treatment for this condition, laboratory blood tests and X-rays were conducted. The X-rays showed radiological alterations in the cavernous body of the penis. After a few months, an inflatable hydroflex prosthesis was implanted. In both patients, during the surgical procedures, it was possible to implant the Hydroflex tube only in one side. In the other, dilation was impossible due to extensive fibrosis in the right side in the first case, and in the second case we found an extensive annular plate. After 6 months, the implants were not functioning anymore. X-rays and laboratory tests were performed. A new surgery was carried out, replacing the Hydroflex prosthesis with a semi-rigid one. We were then able to observe that, when not in contact with the fibrous cavernous body of penis, the prosthesis pump mechanism functioned regularly well.

### Penile Trauma, Priapism, Genital Surgery

#### P-127

### High-Flow Priapism and Erectile Dysfunction

*F. Colombo, Italy; A. Guarneri, J. Kartalas Goumas, E. Austoni*

**Introduction** Radiological superselective transcatheter embolization of the proximal artery supplying arterial-lacunar fistula is supposed to be the present treatment of choice in cases of post-traumatic high-flow priapism refractory to conservative and medical treatments.

In our experience microsurgical selective ligation of the injured artery present less risk of post-operative erectile dysfunction (E.D.)

**Materials and Methods** From 1986 and 2001, 8 pts was referred to our clinic, from 1 to 4 days after perineal trauma, presenting incomplete and painless penile erection. 6 pts were treated by microsurgical ligation of the feeding artery, 2 by superselective embolization with tungsten microcoils.

**Results** All priapism were successfully treated. All the six operated pts maintained sufficient corporal rigidity for intercourse.

One of the two embolized pts complained for severe post-op E.D.

#### P-128

### Priapism: Retrospective Evaluation of 17 Cases

*J. Silva, Portugal; J. Gomes, N. Tomada, P. Vendeira, M. Reis*

**Introduction** Priapism is a rare disease, characterized by a prolonged erection unrelated to sexual stimulus or desire. There are two distinct types of priapism with different etiologies, pathophysiology, treatment and complications.

**Material & Methods** We retrospectively reviewed all cases of priapism, observed at our institution in a twelve year period.

**Results** From 1989 to 2000, were observed at our institution 13 patients with low-flow priapism (16 episodes) and 4 patients with high-flow priapism. The mean age in the first group was 41 years (27-70 years) and in the second group 33,3 years (23-42 years). Venocclusive priapism was idiopathic in 8 patients, pharmacologic in 3, due to drug abuse in 1 patient and secondary to penile metastization of bladder tumor in other patient. In arterial priapism, perineal trauma was the common cause to all patients. No one patient treated successfully with conservative measures had "de novo" erectile dysfunction. In the group of patients with high-flow priapism, all of them returned to previous erectile function.

**Conclusions** Venocclusive priapism is the most common form of the disease and the most severe. Traditionally, idiopathic form was the

most frequent, although actually, the majority of cases is associated with intracavernous injection of vasoactive substances for ED (this situation was not yet observed in our study). This type of priapism is an urologic emergency, being the rapidity of treatment, the principal prognostic factor. Nonischemic priapism, results in the majority of the situations, from penile or perineal trauma, leading to the creation of a fistulous tract to erectile tissue. This is not an urologic emergency and require an elective treatment.

#### P-129

### Penile Bending and Erectile Dysfunction (ED)

*E. Longhi, Italy; F. Montorsi*

**Objectives** To verify the psychological, relational and sexological aspects that restricts the sexual activity within surgically treated for penile bending patients.

**Materials and Method** 5 patients, from 25 to 53 years hold, with positive surgical results. We evaluates their sexological behavior through a pointed interview about: own personal history, the relation with own body, partner's relationship, sexual interests, perversions, erotic fantasy, sexual education.

**Results** The suffered ED, analyzing the psycho-sexological anamnesis, appear: 38% as dependency on partner and consent of external relationships; 6% as patient's inability to manage the sexual competition; 34% as depression as consequence of economical or sentimental flops; 7% as homosexuality; 1% as bi-sexuality; 10% as a "magic solution" expectation for an intensive extramarital infringement; 4% as "white" sexuality (no experience with complete sexual intercourse).

**Conclusions** These research demonstrates the necessity of a psycho-sexological counseling to these patients before and after the operation to prevent post-operation submissiveness.

#### P-130

### Penile Enhancement and Elongation: Review of 100 Cases

*A. Rosello, Spain; A. Mus, M. Rebassa, J. Beut, J. Cruz*

**Aim** Demand for this surgery has increased steadily due: (a)small penis from anatomical perspective (b)improving self-esteem (c)penis-related pathologies. Need to perfect the technique successfully.

**Design & Methodology** Infra-pubic inverted "Y", total resection of suspensory and lateral ligaments of the penis, creation of two retro-penile aponeurotic bridges and of a flap of subcutaneous dermo-fat from infra-pubic skin, respecting the vascular tissue and fixing it to the retro-penile superior bridge between the penis and the pubis, to avoid penile retraction. Girth augmentation achieved with a low pressure fat aspiration, decantation, ultra-filtration and emulsion. It is deposited in between the Busch fascia and the tunica albuginea. Pre/post surgery measurement of the penis with calibrator.

**Results** Mean elongation: 3.5cm post-surgery, 2.5cm after 3 months and 2.5cm after 6 months. Mean augmentation post-surgery: 2.5cm, 2.0cm after 3 months and 1.5cm after 6 months. 4 wound infections, second intention scarring, 8 haematomas none of which affected positive outcomes. 78% very Satisfied. 12% satisfied. 10% not satisfied. Control of erectile function pre/post surgery (IIEF) and DIR Rigidometer.

**Conclusions** We believe that occasionally, it is a necessary surgery not from an anatomical perspective, but from the psychological angle. This surgery should be performed by urologists/androgologists.

#### P-131

### Cosmetic and Functional Outcomes of MF Geniatl Gender Reassignment Surgery (GRS)

*S. Venketraman, United Kingdom; M. Simms, T. R. Terry*

**Introduction & Methods** Between 1997 to 2002, 115 patients underwent full genital GRS using the techniques of penile skin inversion and formation of a sensate neocitoris at our centre. A post-operative postal survey generated 46 responses. Mean age at operation was 48. Mean years at followup was 1.47

**Results** 44/46 (96%) patients reported a sensate clitoris sufficient to achieve orgasm in 24 cases (52%). Cosmetically 82% were satisfied with their neoclitoris. 30/46 patients (65%) achieved penetrative vaginal intercourse. In 17 cases (37%) vaginal intercourse itself was sufficient to produce orgasm alone. 44/46 (96%) patients expressed satisfaction with the cosmetic appearance of their labia. The main postoperative complications were lower urinary symptoms with 3/46 (6.5%) undergoing meatotomy. Global satisfaction following surgery was expressed by 42/46 patients (91%). In line with previous reported series we report a technique producing excellent functional and cosmetic results in the majority of patients. There was an overall high rate of satisfaction.

**Conclusion** The present series confirms the good functional and cosmetic results of single stage M→F genital GRS.

### P-132

#### Male-to-Female Reassignment in Transsexuals: The Frankfurt-Experience

*M. Sohn, Germany; R. Sikora*

**Introduction and Objectives** From 1990 - 2002 more than 150 patients with male-to-female transsexualism underwent a single-step primary genital transformation, using pedicled island flaps from penile skin. The experience and operative modifications shall be explained in detail.

**Design and Methods** In all cases of primary genital reassignment, pedicled island flaps were used for surface coverage of the neovagina. Recently, in case of short, circumcised penises we accept a resulting short vagina which is treated by forced dilation during the postoperative course. If vaginal depth remains insufficient, split-skin grafts are used in a second session for vaginal prolongation. In case of failed vaginal reconstruction, secondary procedures were performed using split-skin grafts or intestinal segments.

**Results** Vaginal shortening or scarring has to be expected in 8 % of all patients after primary reassignment surgery. Re-operations using split skin grafts resulted in good clinical outcome in all but one cases. Neoclitoris formation using part of the glans connected with the dorsal neurovascular bundle of the penis is of utmost importance for the patients.

**Conclusion** Male to Female genital reassignment has become a standardized operative single-step technique with good clinical outcome

### P-133

#### Abdominal Retroperitoneal Sacropexy for Neovaginal Prolapse in a Male-To-Female Transsexual

*C. Bettocchi, Italy; F. Palumbo, P. Ditunno, G. A. Saracino, G. Loverro, M. Battaglia, F. P. Selvaggi*

**Objectives** Neovaginal prolapse is a rare event and to our knowledge no case has been previously reported after vaginoplasty with peno-scrotal flap performed in male-to-female transsexuals.

**Case report** A 34 year old male-to-female transsexual underwent in 1999 a peno-scrotal flap vaginoplasty and clitoridoplasty. One year after the operation, the patient complained of complete inversion of the posterior neovaginal wall. Considering the age and expectations of the patient, an abdominal sacropexy was performed. Post-operative course was uneventful and at the 3 year follow-up the patient was satisfied about functional and aesthetic result.

**Conclusion** Assimilating this situation to that of young sexually active woman after hysterectomy, we choose abdominal retroperitoneal sacropexy in order to preserve vaginal patency. Considering the good results obtained, this kind of surgical technique should be considered of choice in male-to-female transsexual patients with neovaginal prolapse.

### P-134

#### Surgical treatment of arterio-venous fistula in cases with erectile dysfunction (Venous Leak)

*C. Constantinides, Greece; F. Moumpaïent, P. Drettas, A. Entchef*

**Objectives** To present the diagnostic criteria and therapeutic treatment in cases with Venous Leak syndrome after arteriovenous fistula.

**Materials and Methods** 10 cases with symptoms of Erectile Dysfunction (E.D.) with no response to vasoactive drugs were examined with power doppler, NPT and angiography. These studies confirmed A-V Fistula of penile vascular system. In 3 cases we have proceeded to selective embolization, and in 7 cases to surgical ligation. Apart from one failure, all patients had good results.

**Results** All patients had a significant improvement in erectile status.

**Conclusions** In young patients the syndrome of low rigidity with high arterial supply (High End Systolic pressure) should be further investigated for vascular pathology. Rarely we can find primary or secondary type of lesion of the penile arteriovenous system. The first diagnostic criterion is the Increased End Systolic pressure, and communications (A-V) in duplex studies. If further investigation documents this pathology, the treatment as referred is Gold-standard.

### P-135

#### The syndrome of dysmorphia and dysmorphobia.

#### Diagnostic algorithm and treatment protocol

*C. Constantinides, Greece; F. Moumpaïent, A. Entchef, P. Drettas*

**Objectives** The purpose of this study is to present a relative new syndrome related to real or illusional genital dysmorphies (dysmorphobias) and the diagnostic and therapeutic steps in these patients.

**Materials and Methods** The fear of small or ugly penis has to be examined under certain psychological approach. In our protocol we suggest a sufficient investigational schedule with questions which can reveal the reality of demand or the illusional motive in men desiring the change of the size and shape of their fallos.

**Results** In this protocol we give sufficient instructions to doctors in order to approach this group of men, and an easy answered questionnaire, which helps them to avoid narcissistic or hysteric personalities.

**Conclusions** In dysmorphies the surgery can be a solution, which alleviates the anxiety of appearance in certain men. But in dysmorphobias the same operation could be a disaster.

### P-136

#### Penile fractures: controversy of surgical vs. conservative treatment

*C. van der Horst, Germany; F. J. Martinez Portillo, P. Alken, K. P. Juenemann*

This presentation reviews the current status of information on the fracture of the penis and focuses on the diagnostic and therapeutic management of this uncommon injury. Penile fracture is a serious urological disorder that demands surgical management. The determination of the extent of severity and the location of the rupture in the tunica albuginea takes foremost priority and demands additional imaging procedures, such as ultrasound or cavernosography. Immediate surgical repair offers complete recovery for patients with penile fracture in most cases, even in the presence of urethral injury. Although penile fracture is easily recognized and classed as a 'first-look diagnosis', the therapy remains controversial. The correct therapeutical approach is a vital factor in the management of penile fractures as the associated significant morbidity can result in the complete loss of erectile function, painful erections or penis deviation. Early surgical treatment is strongly recommended because of the excellent results.

**P-137****Penile Calciphylaxis: A Clinical Case***C. Imbimbo, Italy; N. Longo, F. Fusco, P. Verze, V. Mirone*

**Objectives** Describing a clinical case of a 53-year-old Caucasian man presented with penile necrosis associated with several nonhealing ulcers on both his legs.

**Design and Methods** Physical examination revealed a cachectic man. His head, neck, oral mucosa, chest, abdomen, back, upper extremities were normal. His penis revealed extensive necrotic ulcer involving the gland covered with a black haemorrhagic eschar, characteristic of calciphylaxis lesions. Several identical lesions were found on both his legs. The patient was diagnosed with a penile necrosis due to calciphylaxis on the basis of clinical history, physical exam and laboratory findings.

The patient presented laboratory values consistent with renal failure (increased creatinine and blood urea nitrogen) and a secondary hyperparathyroidism with elevated calcium and phosphate product. Surgical treatment included penile amputation and conservative debridement of necrotic sites on his legs.

Genital wound and leg lesions were treated by local disinfection, topical gentamicin ointment and covered by gauze and a waterproof film dressing which were changed every two days.

Suggestions for frequent turning of the patient and a special bed were made in order to decrease focal areas of pressure to avoid pressure ulcers.

**Conclusions** Unfortunately, despite continual improvement of his low-extremities ulcers, control of infection could not be maintained. His leukocyte count continued to increase despite aggressive systemic antibiotic therapy and wound care. He developed severe gastrointestinal symptoms and expired from cardiac arrest.

**P-138****Total glans excision in penile carcinoma preserves erectile function***J. Kalsi, United Kingdom; S. Minhas, P. Kell, D. Ralph*

The aim of this study was to assess the role of total glans excision and split skin grafting in the treatment of penile carcinoma

Between 1999 and 2002, fourteen patients (mean age 50 years, range 35-74 years) underwent glans excision and partial thickness skin grafting. All patients underwent pre-operative MRI. Post-operatively all patients were followed up with respect to graft take, recurrence, cosmesis and erectile function (IIEF-5).

Tumour was completely excised in all cases. Histology: G1 (n=5), G2 (n=6) and G3 (n=3). Staging: T1 (n=8), T2 (n=6). 100% correlation between pre-op MRI and histological staging. No local recurrences (mean follow-up 13 months range 3-38). All patients satisfied with cosmesis. Using the IIEF-5; seven of eight patients were potent having satisfactory sexual intercourse (IIEF-5 range 15-22).

Glans excision and split skin grafting is effective in the surgical treatment of the primary tumour, provides excellent cosmesis and preserves erectile function.

**P-139****Arterial Priapism in Childhood: Causes, Treatment and Outcome***C. LaFuente, Portugal; J. P. Cadilhe, A. Stocker, D. Barradas, M. Filinto, A. Pimenta*

**Introduction & Objectives** Priapism is an involuntary erection that lasts for > 4-6h, without any association with sexual stimulation and usually becomes painful. We present posttraumatic priapism in childhood with formation of a high flow arteriocavernous fistula. This is a rare pathology associated to the uncommon fact of the patients being children.

**Material & Methods** The authors report 2 clinic cases. A 4 year old boy with a not painful and persistent erection for 3 days, after a bike crash. Cavernous blood gases confirmed arterial blood. Color duplex

Doppler ultrasonography (CDDU) showed a focal area of high flow in the left cavernous artery with low resistance, compatible with existence of an arteriovenous fistula. We proceeded to left pudenda selective arteriography with PVA (Polyvinylalcohol) supraselective embolization. The other kid was 10 years old and presented an erection for 4 days (priapism) after a car accident. The child suffered soft pelvic trauma without any fractures, presenting penoscrotal haematoma. Cavernous blood gases confirmed also arterial blood. Penile CDDU displayed arteriovenous high flow fistulae of the right cavernous corpus. Treatment was the same as above but on the right side.

**Results** After 2 careful section of microembolization with a 36 h interval between them for the 10 year old child and only one section for the 4 year old child we were well succeeded in closing the fistula, with total reversion of priapism and penis normalization. They both had good outcome, maintaining physiologic erections with a 4 months follow up for the older child and 18 months for the younger one at the time of the abstract.

**Conclusion** Arterial priapism is much less frequent than venous priapism, and can have an expectant behaviour, be treated with arteriovenous fistula embolization, or surgically corrected. In our department we generally opted for embolization across selective pudenda arteriographic, being a morose and minutious procedure, especially in children. Even in childhood it seems to be a safe and well-succeeded technique in experimented hands without being totally risk free.

**P-140****Sigmoid Vaginoplasty in Male Transsexuals***N. Longo, Italy; C. Imbimbo, S. Di Meo, F. Mangiapia, A. M. Granata, P. Verze, V. Mirone*

**Introduction** vaginal reconstruction in gender reassignment is usually attempted with techniques that use penile skin. When these techniques fail or result nor feasible because of reduce penile shaft length, vaginal replacement is possible using intestinal segments.

**Patients and methods** 9 male transsexuals underwent sigmoid vaginoplasty surgery in our Department. Patients were aged between 22 and 56 years old. In any case indication to this kind of surgery was consequent to the insuccess of previous penile skin inversion techniques. In one case it was consequent to ischemic necrosis of the cutaneous flap. As intestinal segments, sigmoid colon was used in 7 cases, ileum in 2 cases.

**Results** any complication (haematoma, haemorrhagia, necrosis or strictures of the neovagina) during post-operative phase was noted. Follow-up was performed for 6 months-2 years period. In 2 cases an ileal neovagina was performed, dispareunia and mucus emission were noted. In any case urethral stenosis or prolapse were obtained.

Sexual activity satisfaction rate resulted high in sigmoidal colon vaginoplasty, lower in ileal vaginoplasty.

**Conclusions** Performing sigmoid vaginoplasty in male transsexuals satisfactory results are obtained. We prefer to performing sigmoidal colon than ileal vaginoplasty.

**P-141****Treatment of high-flow priapism by percutaneous Gelfoam embolization of internal pudendal artery***S. Nekooei, Iran; A. Shamsa, H. Ahmadnia*

**Objective** Comparison between surgery and percutaneous embolization in high-flow priapism.

**Patients and Methods** In a 5-year period, 82 cases of priapism were admitted. High-flow priapism was diagnosed in 6 patients. In the first three cases internal pudendal angiography was performed for final diagnosis. These patients underwent open surgery. In the last three cases, diagnosis was made by color Doppler ultrasound. Then angiography was performed and the injured internal pudendal artery was superselectively embolized using Gelfoam particles.

**Results** Mean hospital stay in the open surgery subgroup was 5 days. In 12 months follow up, one patient was potent, one was impotent, and one patient did not come back. In three patients treated by embolization, all were discharged from the hospital in the same day. In 8 months follow up, erectile function was normal.

**Conclusion** superselective embolization of internal pudendal artery is a safe and effective treatment in non-ischemic priapism.

#### P-142

##### Penile Fracture. Our Experience

*R. Rodriguez-Villalba, Spain; J. Hidalgo, J. Caffaratti, J. Ruiz-Castane, J. M. Pomerol, H. Villavicencio*

**Introduction and Objectives** The objective of this revision is to describe the cases of thirteen patients diagnosed as Fracture of Penis who attended to our hospital.

**Methods** We retrospectively reviewed penile fracture cases from June 1989 to December 2001.

**Results** Diagnosis was made clinically in all cases and confirmed by ultrasound in two of them. Trauma was encountered during sexual intercourse in 10 patients (88.8%), two by direct trauma in bed and one by trying to achieve detumescence during an erection. Eight cases were treated with surgical exploration and repair, five patients were treated by conservative management. In two cases, concomitant urethral injury was observed. Repairing consisted in a circumferential incision through Dartos fascia to deglove the penis. In all cases, a hematoma contained by Buck's fascia was found. In one case we found a laceration in the superficial dorsal vein, with no other injury. The mean hospital stay was 4.3 days (range of 2 to 9 days). In all cases, antibiotics were administered. The postoperative complications were incurvation in two cases, painful erection in one case, erectile dysfunction in one case and one patient was lost of outcome.

**Conclusions** Fracture of the penis is an uncommon injury that results from trauma to the erect penis. Diagnosis is mainly based on patient history and clinical findings. Surgical exploration offers the possibility of early repair with less complications compared with conservative management.

#### P-143

##### Penile Enhancement and Elongation: Details of Surgical Technique in Order to Avoid Complications

*A. Rosello, Spain; A. Mus, M. Rebassa, J. Beut*

**Aim** Surgical enhancement of the penis is still considered as an experimental technique by the ISSIR however, the demand for this kind of surgery has increased steadily. We present surgery techniques as well as pre/post surgery procedures to minimise complications.

**Design & Methodology** Specify the technique to approach the cutting of the suspensory ligament and the lateral ligaments of the penis. Construction of two aponeurotic bridges that separate the base of the penis from the pubis. Placement of a subcutaneous dermo-fat flap between the penis and pubis acting as an expander, thus avoiding penile retraction. Fat aspiration at low pressure to maintain cells, decantation, ultra-filtration and emulsion. Fat injection between tunica albuginea and Busch's fascia. Post surgery care.

**Results & Conclusions** This technique has been applied in over 100 cases with a high level of satisfaction. 90% very satisfied, 10% not satisfied.

#### P-144

##### The Surgical Approach to Non-Erecting Erection

*R. Rub, Israel; D. Yachia*

**Introduction and Objectives** An erect penis assumes a position with an angle of 30-45 degrees. Abnormalities of the suspensory ligament cause abnormal erection and lead to sexual dysfunction.

**Patients and Methods** The study included 19 men aged 13 to 37 (23.4 average) with non-erecting erection. All underwent surgical correction via nylon anchoring sutures which were inserted between

the symphysis pubis and the tunica albuginea in the base of the penis in combination with/without modified corporoplasty. Preoperative and postoperative photographs were taken.

**Results** An erection of 45-90 degrees to the plane of the abdominal wall was achieved after the operation. Follow-up ranged from 6 to 24 months (mean 13). Two patients needed a second operation.

**Conclusions** Non-erecting erection may cause sexual dysfunction due to difficulty in penetration the vagina. Our technique of correction this deformity is a simple and safe procedure, which achieves excellent cosmetic and functional results.

#### P-145

##### Therapy of High Flow Priapism Ensuing from a Penile Trauma

*M. Scarfini, Italy; E. Spera, A. De Carolis, P. Preziosi, M. Scarfini, S. Angelone, G. Vespasiani*

**Introduction and Objectives** We describe the case of a 24 years old patient treated for a high flow priapism appeared three days after a perineal trauma.

**Materials and Methods** The physical examination showed a moderate penile rigidity and tumefaction together with local pain and ecchymosis. A color duplex ultrasonography of the penis showed a low echogenicity beating area with a surrounding hemorrhagic stuffing. Than a super-selective arterography proved a shunt between the cavernous left artery and bulb-urethral left artery and a disappearance of cavernous artery distal to the lesion. We performed an embolization with Gianturco's spiral obtaining the immediate revascularization of arterial system distal to the lesion.

**Results** The patient had a swift disappearance of priapism and follow up at one week and one month showed the recovery of a normal erectile function.

**Conclusions** A timely super-selective embolization can give a complete cure of a post-traumatic high flow priapism.

#### P-146

##### Surgical Penile Enlargement (Phalloplasty): New Technique and Materials

*R. Vaccari, Italy*

**Introduction** Refusal to accept penis size is found in around 25% of the patients who go to an andrological clinic and andrological plastic surgery centre. The patients in question suffer from various types of refusal to accept their own penis, even when its dimensions are normal or borderline.

**Materials and Methods** The patients are examined and clinical measurement are taken in the rest position and up- on drug-induced erection, with ecotomography with a view to assessing the thickness of the fatty tissue of the pre-penile pubis and the length of the pubic-penile ligament, and an endocrine-andrological examination is done. This is followed by a psychosexual assessment geared towards obtaining an understanding of the patient's potential problems, his expectation with regard to penis enlargement and excluding patients with unrealistic objectives. In patients with altered vascular risk factors, an assessment of the micro-circulation is carried out by optic probe videocapillarography, and, due to the high risk of reabsorption of the fatty tissue that would be implanted by lipo-filling, they are advised to undergo phalloplasty with a filler such as polyacrylamide. This is a form of endoprosthesis with biocompatible water that cannot be reabsorbed and, once injected, leads to the formation of a capsule in the area beneath the prepuce between the Colles and Buck fascia. This is a filler that can be easily removed at a later date if the patient is not satisfied with the results achieved. Contraindications to the treatment include erection dysfunction, malformation of the penis, and even a slightly narrow or overabundant prepuce, which has to first be corrected by circumcision. The operation takes place under local anaesthetic and consists of a small incision at the base of the penis, by means of which the filler is injected. The operation leads to a stable increase in the circumference of the penis when at rest and erect. The

penis is also longer when at rest. In the post-operation stage, the patient has to carry out special massages for a period in the region of 2 months (capsule formation). In patients affected with severe penile hypoplasia we associated to the 'suspensory ligament resection' the implantation of two patches of pig dermal tissue (Pelvicol TM) in the lateral albuginea for penile enlargement.

**Conclusions** Our case study (58 cases of filler phalloplasty and 5 cases using Pelvicol TM) is recent but encouraging. If the indication, and above all the contraindications, are complied with and if the psychological status of the patient permits, the procedure goes ahead with no complications and the results are satisfactory.

## Genital Anomalies and Diseases, Peyronie

### P-147

Are there any immunological Findings related to Peyronie's Disease?

*C. Da Ros, Brazil; C. Teloken, T. Graziottin, M. Chammas, S. Laste, P. Sogari*

**Objectives** The aim of this study was to look for any immunological marker that could be associated with Peyronie's disease.

**Design and Methods** Eighty seven patients with Peyronie's disease and thirty four controls were studied. In all patients, serum immunoglobulin (Ig) A, G, and M, antinuclear antibodies, C3 and C4 complement fractions, antistreptolysin, and C-reactive protein titers were evaluated. To perform statistical analysis, we utilized chi square test, Fisher's Exact Test (two tail) and Mann-Whitney test, and p was considered significant when  $< 0,05$ .

**Results** Mean age was 57,9 years (range from 30 to 74). We observed statistical difference related to IgA, where there were elevation of its value in 13.79% (12 cases) of the cases ( $p=0.01913$ ) (Table 1). This specific group shows less calcification too ( $p=0.0436$ ).

**Conclusions** We can conclude that there is association between the immune system and Peyronie's disease.

IgA normal IgA elevated Row total

Control 34 0 34 (28.1%)

Peyronie 75 12 87 (71.9%)

Column total 109 (90.1%) 12 (9.9%) 121 (100%)

### P-148

Single Nucleotide Polymorphisms of the Transforming Growth Factor-Beta-1 Gene in Peyronie's Disease

*A. Hauptmann, Germany; E. W. Hauck, G. Bein, W. Weidner, H. Hackstein*

**Introduction and Objectives** Transforming growth factor-beta-1 (TGF- $\beta$ 1) has been discussed to play a central role in the pathogenesis of Peyronie's disease. We have prospectively investigated two defined single nucleotide polymorphisms (SNPs) in the coding region of the TGF- $\beta$ 1 gene that have been described to be associated with different levels of TGF- $\beta$ 1 production.

**Material and Methods** DNA samples from 111 consecutive patients with idiopathic Peyronie's disease and 100 controls were genotyped for the two defined dimorphic SNPs T869C and G915C in the coding region of the TGF- $\beta$ 1 gene.

**Results** We found an increased frequency of the homozygous genotype of the SNP G915C in patients with Peyronie's disease compared to healthy controls (89.2% versus 79%;  $p=0.04$ ). However, there were no significant differences in the allele frequencies of the SNP T869C.

**Conclusions** Our results indicate that the homozygous wild type of the G915C SNP, that was recently associated with elevated TGF- $\beta$ 1 production, may influence the predisposition for Peyronie's disease but does not constitute a major genetic risk factor.

### P-149

Quality of Life in Patients Treated with Essed Plication Procedure in Congenital and Acquired Penile Deviation

*C. van der Horst, Germany; F. J. Martinez Portillo, D. Melchior, C. Seif, P. Alken, K. P. Juenemann*

**Objectives** Tunica plication is a standard technique to treat patients suffering from penile deviation. In a prospective study we investigated the patients and partners pre- and postoperative quality of life using a detailed questionnaire.

**Design and Methods** 50 patients (median age 40 years) 28 suffering from Peyronie's disease (PD), 22 complaining of congenital penile curvature (CPC) were included. All patients had their curvature corrected by Schroeder-Essed tunica plication. A self-completed questionnaire was used to evaluate the quality of life.

**Results** The median follow up was 30 months. 90% of all patients were able to have sexual intercourse after surgery compared to 62% before surgery ( $p=0,001$ ). Erectile dysfunction did not occur. The grade of deviation improved ( $p=0,0001$ ). 48% of PD patients remarked a penile shortening compared to 26% of CPC patients. Re-operation was necessary in 8 % of all patients.

**Conclusions** These results recommended the tunica plication as a operative technique with a maximal protection to the erectile function and good functional results to patients with CPC. In CPC the outcome is better than in PD.

### P-150

Comparison Between a Slightly Modified and the Original Essed Plication Procedure for Congenital Penile Deviation

*F. J. Martinez-Portillo, Germany; C. van der Horst, D. Osmonov, K.-P. Jünemann*

**Introduction & Objectives** The Schroeder-Essed plication procedure is a standard technique for correction of penile curvature. In a retrospective analysis we compared functional results and life quality (LQ) of the original technique described by Schröder-Essed with inverted sutures and a slight modification consisting in horizontally incisions in the tunica albuginea.

**Materials & Methods** 26 patients with congenital penis deviation, (CPD) were treated for penile deviation by the original Schroeder-Essed plication with inverted sutures (11 pat.) and by the former described modification (15 pat.). In the first group the mean age was 21,6 yrs and 21,2 yrs in the second group. The average follow-up was respectively 28 months and 13 months. The preoperative penis deviation angle was  $< 250$  in all patients without differentiation between the two groups.

#### Results

original	CPD	modification	CPD
100%	11	improvement of LQ	100%
88%	9	cosmetic result	93%
100%	11	possible cohabitation	100%
91%	10	penile shortening	87%
18%	2	deviation recurrences	0%

**Conclusion** Our results indicated that this simple modification of the Schröder-Essed plication offers good functional and cosmetic results. Most patients were satisfactory with the penile angle correction results.

### P-151

The Lue Procedure As A Salvage Following A Nesbit Procedure

*A. Muneer, United Kingdom; A. Muneer, J. Kalsi, P. Kell, S. Minhas, D. Ralph*

**Objectives** To analyse the outcomes of performing the Lue procedure in patients with Peyronie's disease who have already previously undergone the Nesbit procedure for penile deformity.

**Design and Methods** Over a five year period, ten patients (mean age 50 years, range 33-66) presented to our department with recurrent penile deformity despite previous corrective surgery using the Nesbit procedure. All had painless and stable Peyronie's disease. The mean angle of deformity was 51 degrees (range 10-90 degrees). They all underwent the Lue procedure using venous grafts from either the deep dorsal penile or the long saphenous veins.

**Results** Postoperatively 7(70%) patients had a residual angulation of between 0-10 degrees. Only one patient reported post operative penile shortening. All the patients reported either an excellent or satisfactory result.

**Conclusions** Patients with recurrent penile deformity due to Peyronie's disease can be effectively managed using the Lue procedure despite having undergone a previous Nesbit procedure.

#### P-152

##### Early Rehabilitation after Induratio Penis Plastica Surgery: Our Experience

*M. Scarfani, Italy; E. Spera, M. Scarfani, A. De Carolis, S. Angelone, S. Sansalone, F. Micali*

**Introduction and objectives** We describe our experience in rehabilitation after Induratio Penis Plastica surgery.

**Materials and Methods** 24 patients were treated with Nesbit corporoplasty or with patch grafting. All subdivided in 3 groups, rehabilitation started from the 30th postoperative day and for 3 months. First group was treated with Vacuum device and Prednisone, second with PgE1 injection and Prednisone, third only with Prednisone.

**Results** After 3 months, among all patients, the penile shortening appeared lower in first group compared with other two groups. 2/3 of patients of the first and the second group recovered sexual activity from the second month in contrast with only 1/3 of third group.

**Conclusions** The rehabilitation with Vacuum device is better than others therapies for reduction of penile postoperative retraction. Both the Vacuum and the PgE1 injection can increase the recovering of patient's sexual activity.

#### P-153

##### Corporoplasty Results in the Treatment of Peyronie's Disease

*J. N. Tomada Marques, Portugal; M. Mendes, J. Silva, P. Vendeira, P. Diniz, M. Reis*

**Objectives** We present a critical review of our experience in penile corporoplasty (PC) for Peyronie's disease (PD).

**Methods** We performed a retrospective analysis of 33 patients submitted to PC (Yachia technique) since 1991 to 2001. Admission protocol included clinical history, autophotography and penile curvature evaluation. We used the Levine and Lenting's algorithm for surgical treatment.

**Results** We achieved the surgical goal in 31 patients (success rate-93.9%). Nineteen patients completely corrected the penile curvature and twelve presented with a significant improvement. Twelve patients exhibited mild to moderate diminished penile rigidity, and six presented curvature recurrence within 2 years.

**Conclusion** Yachia's PC displays good results, especially in selected cases accordingly to Levine and Lenting's algorithm.

#### P-154

##### Corporoplasty in advanced Peyronie's disease using venous- and /or dermis-patch or TachoComb®H grafting: New surgical technique and long-term patient satisfaction

*B. O. Backhaus, Germany; S. C. Müller, P. Albers*

**Objective** Evaluation of long-term results and patient satisfaction of corporoplasty using saphenous vein-, dermis-patch or TachoComb®H grafting in patients with advanced Peyronie's disease.

**Methods** A total of twentyfive patients were included and followed over a mean period of 19 months. Postoperative patient satisfaction was assessed using the IIEF questionnaire. The mean preoperative grade of deviation in this collective was 86°.

**Results** Intraoperatively, the deviation was straightened in all patients. Postoperatively, 25% of the patients complained a penile shortage of 1-2cm and only two patients had a recurrence. The overall postoperative sexual satisfaction score was 2.76 (of 5).

**Conclusions** All techniques are safe and effective procedures for high grade Peyronie's disease. In case of an insufficient vein anatomy the dermis-patch interposition is a good alternative. The TachoComb®H corporoplasty has the advantage that graft harvesting is unnecessary. The limited IIEF score is likely due to a high preoperative patient's expectation of surgical correction.

#### P-155

##### Efficacy of Daily Penis-Stretching Technique to Elongate the "Small Penis"

*G. M. Colpi, Italy; P. Martini, F. I. Scropo, M. Mancini, F. Castiglioni*

**Objectives** The main surgical ask for penis elongation is of men having a penis size within the standard limits but not considered satisfactory by the subject ("small penis"). The aim of this study was to verify the efficacy of the penis-stretching physiotherapy for penis elongation.

**Design and Methods** Nine healthy men suffering from "small penis" were enrolled (range age: 26-43 years). The initial stretched penis length was 12.0 cm (range 8.1-15.4). The "Penistretcher ®" device was prescribed for at least 6 hours per day, for at least 4 months.

**Results** In all subjects the elongation of penis was proportional to the device time of use. After 4 months the stretched penis augmentation was +1.8 cm (range +0.5-+3.1 cm). The daily average use was 6½ hours (range 3-9 hours). No side effects occurred.

**Conclusions** Our data show the efficacy of the penis-stretching physiotherapy in the "small penis" treatment.

#### P-156

##### Therapeutical Approach to Peyronie's Disease: Multicenter Study of Italian Society of Andrology

*G. Gulino, Italy; F. Colombo, A. Palmieri, E. Spera, R. Falabella, F. Sasso*

A team of Italian Society of Andrology carried out a study to verify the therapeutical strategy for Peyronie's disease in Italian excellency centers. Specific multiple answers questionnaire have been sent to 30 centers.

Oral drugs after surgery (76% E, vitamine, 45% tamoxifene) are administered in the vast majority (26 of 30 centers), whereas fifteen centers use intralesional therapy (Cortisone, Verapamil, Colchicine).

Fifty-two % of surgically-treated patients underwent to conservative corporoplasties, 31% to plaque surgery and 17% to prostheses. Twenty-five of 30 centers perform plaque surgery (45% incision, 55% radical excision using Saphena in 44 % of cases, but also Alloderm, SIS).

They administer early post-surgical therapy (20 days after operation) with Sildenafil in 60% of cases, ICI (43%), Vacuum (38%), Cortisone (10%).

The study point out the great attention of most of Italian Centers to post surgical complementary therapies and to new biomaterials as substitute of tunica albuginea.

**P-157****Colchicine in the Treatment of Peyronie's Disease***E. Akkus, Turkey*

**Introduction and Objectives** Even though there are limitations of efficacy, there are several alternatives in treatment modalities in the acute phase of Peyronie's Disease. We present the efficacy of colchicine as a drug which increases the collagenase activity and decreases the collagen synthesis in the treatment of Peyronie's Disease.

**Methods** Our study group consists of 54 cases who had been treated with colchicine and their follow-ups completed between 1994-2002. The age range of the cases were 38-66 (mean 51.4) and the duration of the disease were <12 months (2-12 months). Colchicine was administered 1-2mg/day for 3-6 months. Subjective evaluation was performed according to the penile curvature, plaque size, and painful erections and objective evaluation was performed according to ultrasonography.

**Results** Painful erections diminished in 39 cases (72%), decreased in 11 (20%), and continued in 4 (7%). Plaque size decreased in 16 patients (30%), diminished in 2 (3%), unchanged in 26 (48%) and increased in 10 (19%). Penile curvature improved in 14 cases (26%) whereas it did not improve in 40 cases (74%). Comparison with Ultrasonography was performed in 14 cases and plaque size was reduced in 7, diminished in 2, and unchanged in 5 cases. Mild to moderate temporary diarrhea in 8 and stomach upset was observed in 7 cases.

**Conclusion** Colchicine is a drug of choice in the acute phase of Peyronie's Disease with an average success rate of 30%.

**P-158****Extracorporeal Shock Wave Therapy in the Treatment of Peyronie's Disease: Our Experience***E. Alargoff, Greece; A. Skolarikos, E. Konstantinidis, C. Deliveliotis*

**Objectives** Preliminary results with Extracorporeal Shockwave Therapy (ESWT) for Peyronie's disease are described.

**Design and Methods** Forty patients aged 41 to 72 years were treated with ESWT on the Epos overhead-module device (Dornier). The severity of pain (using visual analogue scale 0-5), the degree of angulation (by vasoactive drug injection) and the plaque's size (by ultrasound measurement) were assessed prior to and after treatment. Each patient was treated with a minimum of two sessions (2000 shock waves at an energy density level of 1 - 5) at 4-week intervals.

**Results** Eight patients (20%) showed marked improvement and complete remission of penile deviation. Six of them had regression of the plaque's size. Twenty-two out of the 40 patients (55%) reported pain relief after the first session. Nine more patients (22.5%) showed partial remission at treatment completion. One patient reported urethral bleeding and two experienced local ecchymosis.

**Conclusions** Our first results support ESWT as an effective and safe treatment for Peyronie's disease.

**P-159****Treatment Options in Peyronie's Disease***M. Cakan, Turkey; F. Demirel, A. Ozkaya, U. Altug*

**Introductions and Objectives** The purpose of this study was to investigate the efficacy and safety of Vitamin E, Colchicine and combination therapy with vitamin E and Colchicine for the treatment of Peyronie's disease.

**Methods** From April 1997 to January 2002, 49 patients suffering from early Peyronie's disease were included in the study (mean age 54.6 years, range 37-71 y). They were divided in three random and homogenous groups. 24 were treated with vitamin E (400 IU daily), 19 with Colchicine (1.5 mg daily); the other 15 patients received vitamin E and Colchicine for 6 months. Response to treatment was

evaluated subjectively and objectively including duplex ultrasound. Pain, plaque size, deformity, disease duration, emotional effect, and sexual function were all investigated before and after treatment. The patients with severe fibrotic or calcified plaques were not included in the study. Follow-up ranges from 6 month (m) to 51 m (mean 22.3m). Chi-square test was applied for statistical analysis.

**Results**

	Vit E N: 24 (%)	Colchicine N: 19 (%)	Vitamin E and Colchicine N: 15 (%)	p
Mean duration of disease(m)	8.3	7.5	8.9	>0.05
Curvature	20.8*	37.452	6.6*	<0.05*
Curvature	33.3*	42.1	46.6*	<0.05*
Penile rigidity	41.6*	47.3	60*	<0.05*
Pain	70.8*	78.9	93.3*	<0.05*
Curvature (obj)	12.5*	37.386	6.6*	<0.05*
Curvature (obj)	37.5*	42.1	53.3*	<0.05*

\*p<0.05; p value is significant at :0.05 level.

Only two patients (one in Colchicine group and one in vitamin E and Colchicine group) discontinued the therapy due to intolerable side effects (severe diarrhea).

**Conclusions** Colchicine therapy seems superior than Vitamin E. Although there were not statistical significant difference between Colchicine group and combination therapy group, the combination therapy with vitamin E and Colchicine seems like the best safe and effective treatment of men with Peyronie's disease.

**P-160****Treatment with Penile Retraction in Evolutive Peyronie's Disease with External Penis-Stretching***G. M. Colpi, Italy; P. Martini, F. I. Scropo, M. Mancini, F. Nerva*

**Objectives** One of the major complaints of Peyronie's disease is penile retraction. The aim of this study was to verify the efficacy of the mechanical penile stretching in evolutive Peyronie's disease.

**Design and Methods** Twenty-two men (age: 18-78 years) suffering from Peyronie's disease at different stages of penile retraction were enrolled and followed-up. The stretched penis length ranged 9.7-15.2 cm. The "Penistretcher<sup>®</sup>" device was prescribed for 6 hours/day, for some months.

**Results** The mean use resulted 5 hours/day (range: 2.5-11), for 3 months (range 1-13). No adverse side effects occurred. The stretched penis elongation (average +0.8; range -0.8/+2.3 cm) resulted correlated only versus the initial stretched length: the shorter at the beginning, the longer at the follow-up (p<0.05).

**Conclusions** Our data show that penis-stretching is effective in Peyronie's disease treatment, especially at the stage of severe penile retraction.

**P-161****Penile Innervation Disorders in Patients Suffering Peyronie Disease***D. G. Dmitriev, Russia*

Assumption of autonomic penile innervation disorders during Peyronie disease appeared as the result of analysis of possible causes of erectile failure in these patients. Neurogenical theory was confirmed experimentally by El-Sakka et al. (1997, 1998). The nerve terminals were injured as the result of collagen proliferation in penis of male rat, and erectile disorders occurred. The clinical examinations of autonomic penile innervation status were carried out in 32 patients at our Urology Department during 2000-2002 years. 19 patients from this group also suffered erectile dysfunction. Pathological picture was detected by electromyography (EMG) in all patients. 6 patients (18.8%) demonstrated the hyporeflexogenous type of EMG, 26 patient (81.2%) demonstrated areflexogenous type. Interestingly that hyperreflexogenous picture of EMG wasn't detected in any case

which is characteristic for neurodegenerative vertebrogenic diseases. Typical disorders of penile innervation disorders in Peyronie disease can be the cause of erectile dysfunction and require early preventive therapy.

#### P-162

##### Erectile Dysfunction after Plaque Surgery and Penile Reconstruction with Grafts in Peyronie's Disease

*F. Sasso, Italy; R. Falabella, G. Gentile, C. Servello, G. Gulino*

**Objectives** Our study wants to verify the erectile function in patients with Peyronie's disease undergone to radical plaque surgery and penile reconstruction with grafts.

**Materials and Methods** Between 2000 and May 2002, 62 patients with severe penile curvature ( $>70^\circ$ ) without erectile dysfunction tested by IIEF 15, were undergone to excision of plaque and apposition of autologous or eterologous graft. After 20 days we administered Sildenafil for erectile rehabilitation for a month. After a period of 3-6 months, we tested erectile function by IIEF 15.

**Results** 34/62 patients (54.8%) kept normal erectile function, 25/62 (40.3%) developed erectile dysfunction of various severity treated by continuative or occasional oral therapy, 3/62 (4.8%) needed to penile prosthetic surgery.

**Conclusions** Plaque surgery and penile reconstruction with grafts keep an important therapeutic role in severe Peyronie's disease. The use of new materials, a good surgical technique aknowledge, a postoperative pharmacological rehabilitation decrease the percentage of post-surgical erectile dysfunction.

#### Ejaculatory and Orgasmic Disorders

#### P-163

##### A Possible Role for Nitric Oxide in the Control of the Function of Human Seminal Vesicles

*S. Ückert, Germany; S. Machtens, O. Heuer, C. Stief, G. Wolf, U. Jonas*

**Objectives** To date, information on the relevance of nitric oxide (NO)-mediated signal transduction in the control of mammalian seminal vesicles (SV) is still sparse. The aim of the present study was to evaluate the effects of the NO-donating drugs sodium nitroprusside (NNP), GSNO, SNACET and SIN-1, as well as the adenylyl cyclase stimulating agent forskolin in an electrically induced contractions and on tissue levels of cGMP and cAMP of isolated human SV strips. The localization of NADPH-diaphorase (NADPH-d), as well as endothelial and neuronal nitric oxide synthase (eNOS, nNOS) was examined by means of immunocytochemistry.

**Methods** SV strip preparations were applied to an organ bath system under standard conditions. Phasic contractions were induced by electrical field stimulation (EFS). The drugs were added in a cumulative manner (0.001 - 10  $\mu\text{M}$ ) and isometric responses of the tissue registered. Following drug exposition, freezing, tissue homogenization and extraction of cyclic nucleotides, cAMP and cGMP were measured by means of enzyme-linked immunoassays. The occurrence of NOS isoenzymes in human SV was examined using light- and electron microscopy (LM, EM).

**Results** EFS-induced amplitudes were dose-dependently attenuated by the drugs (GSNO  $>$  NNP  $>$  Forskolin  $>$  SNACET  $\geq$  SIN-1). The inhibitory effects of GSNO, NNP and forskolin were paralleled by an increase in tissue cGMP and cAMP. NADPH-d- and eNOS-staining and was seen in endothelial cells of glandular spaces and in the endothelium of small arteries. In endothelial glandular cells, NADPH-d reaction product BSPT-formazan was detectable attached to membranes of the endoplasmatic reticulum and the mitochondria whereas only small amounts of eNOS immunostaining were identified. nNOS staining was found to be present in subepithelial glandular structures and nerve fibers innervating the SV smooth musculature.

**Conclusion** Our results support the hypothesis that the motility of human SV is in part regulated by the NO-cascade. This may give a rationale for the use of S-nitrosothiols, such as GSNO, in the pharmacotherapy of hyperexcitatory disturbances of ejaculation.

#### P-164

##### A Study of the Role of 5-HT<sub>1A</sub> Receptors in SSRI-induced Ejaculation Delay in the Rat

*I. Williamson, United Kingdom; L. Turner, K. Woods, C. P. Wayman, P.-H. Van Der Graaf*

**Introduction and Objectives** SSRIs are often used off-label to treat premature ejaculation (PE). This study explored the time course and role of 5HT<sub>1A</sub> receptors in SSRI-induced delayed ejaculation in a rat model of sexual behaviour.

**Methods** Male rats were chronically dosed with the SSRIs fluoxetine (FLX) or citalopram (CIT) for 11 days and acutely treated with a 5HT<sub>1A</sub> antagonist, robalzotan (ROB), on test days. Copulatory behaviour was tested on days 1 and 11.

**Results** Neither FLX or CIT affected ejaculatory latency (EL) at day 1. At day 11, FLX significantly increased EL whereas CIT had no effect. Coadministration of FLX or CIT with ROB significantly increased EL at day 1 and 11. There were no effects on other copulatory behaviours.

**Conclusions** 5HT<sub>1A</sub> receptor antagonism/desensitisation underlies the time-course of SSRI-delayed ejaculation. Therapeutic approaches that inhibit serotonin re-uptake and 5HT<sub>1A</sub> receptors maybe useful as an effective on-demand treatment for PE.

#### P-165

##### Differential Effect of Electrical Stimulation of Spinal and Hypogastric Nerves on Parameters Characterizing Ejaculation in Anesthetized Rats

*F. Giuliano, France; H. Bester, M. Laurin, J. Bernabe, P. Denys, E. Chartier-Kastler, L. Alexandre, G. Benoit, J. Allard*

**Objectives** It is hypothesized that anejaculation might be treated in spinal cord injured patients by electrical stimulation (ES) of the L6 spinal nerves (L6SN). We compared the impact of ES of L6SN and hypogastric nerve (HN) on parameters characterizing ejaculation in anesthetized Wistar rats.

**Design and methods** L6SN and HN were stimulated in spinalized rats at the T8 level while bladder neck and seminal vesicle pressure (BNP and SVP), electromyographic activity of bulbospongiosus muscle (BS) and volume of prostatic secretion (VPS) were recorded.

**Results** ES of L6SN induced rhythmic contractions of BS similar to that observed during expulsion phase of ejaculation. It induced marginal increases of VSP but left BNP unchanged. In contrast, BS activity was not observed after ES of HN whereas SVP and BNP displayed significant increases. VPS was significantly more important upon ES of HN than L6SN.

**Conclusion** ES of L6SN could not reproduce a complete ejaculatory process, but elicited an expulsion-phase like activity of the BS. Stimulation of additional spinal nerves may be required in this aim.

#### P-166

##### Automated Recording of Ejaculation Latency

*M. Wyllie, United Kingdom; W. Dinsmore, D. Ralph, M. O'Leary*

**Objectives** Premature ejaculation (PE) is poorly characterised. Ejaculatory latency is difficult to quantify objectively and therefore normal and abnormal parameters have only been imprecisely defined. We describe a portable stimulating and recording device that can be used to record automatically both time to erection and ejaculation.

**Design and Methods** Volunteers and patients underwent timed penile stimulation to ejaculation while undergoing standardised visual sexual



stimulation. Events were recorded using an indium-gallium disposable transduction system.

**Results** The time to erection and ejaculation in "normals" averaged approximately 120secs and 530secs, respectively and the latter was substantially reduced (by up to 80%) in patients with PE.

**Conclusions** This portable automated device allows reproducible measurement of erectile and ejaculatory parameters and should prove useful for diagnosis of PE and in clinical trials.

#### P-167

### The Value of Bulbocavernosus Reflex and Somatosensory Evoked Potentials in Evaluating Patients with Premature Ejaculation

*J. Chen, Israel; M. Alon, B. Fishel, H. Matzkin*

**Objectives** This prospective study aimed to evaluate the differential diagnostic value of Bulbocavernosus Reflex (BCR) and somatosensory evoked potentials (SEP) in patients with premature ejaculation (PE) of undetermined origin.

**Materials and Methods** Twenty-seven men (mean age 35.9 years, range 23-59) complaining of PE underwent a detailed medical and sexual history, a physical examination and completed the International Index of Erectile Function (IIEF) questionnaire to rule out erectile dysfunction. The Center for Marital and Sexual Health (C-MASH) questionnaire and measurements of intravaginal ejaculatory latency time (IVELT) were used to confirm the diagnosis of PE. Only patients with a C-MASH score >4 and an IVELT score >2 were included in the study.

**Results** The mean BCR latency of 35.9msec (n<42msec) and 39.4msec (<44msec) of SEP latency were measured in entire study subjects. BCR were normal in all 27 subjects, while SEP were abnormal in 11 (40.7%) of them.

**Conclusions** SEP may have value in confirming a diagnosis of PE.

#### P-168

### Treatment of Sildenafil as Part of the Treatment in Premature Ejaculation

*R. Linn, Israel; Y. Ginesin, B. Hardak, S. Mertyk*

**Introduction & Objectives** Ejaculatory Dysfunction is the most common male sexual disorder, and premature ejaculation is the most common presentation of ejaculatory dysfunction. Premature ejaculation has generally been considered as a psychosexual disorder with psychogenic etiology. Although still mainly treated by behavioral therapy, in recent years more and more studies are being made to indicate the beneficial effects of different drugs towards the improvement of symptoms. Good treatment results have been obtained with orally administered Sildenafil, with or without antidepressant.

**Material & Methods** Between 1999-2001 seventy six (76) patients suffering from premature ejaculation were treated with Sildenafil as a single therapy or combined with Seroxate. Age of patients ranged between 18-45 (mean age 37.7). Twenty six (26) patients (34%) received Sildenafil as single therapy, of 25-50g/week. Fifty (50) patients (66%) received daily dose of Seroxate 20g with Sildenafil among whom 25 patients received 25g Sildenafil twice a week while 25 patients received 50g Sildenafil.

The cessation of treatment was between 3-8 month.

**Results** There were no significant adverse reactions. Good results were achieved among the single therapy group in 14/26 (55%) and among the combined therapy group in 28/50 (56%) Additional satisfactory results achieved among 6/26 (23%) and 22/50 (24%) patients respectively.

**Conclusions** Our data suggest that low dose therapy with Sildenafil as a single agent can be used as a drug of choice in treatment of this entity.

#### P-169

### Alpha Blockers in the Treatment of Premature Ejaculation

*M. Basar, Turkey; M. M. Basar, E. Yilmaz, M. Ferhat, H. Basar, E. Batislam*

**Objectives** The aim of present study is to evaluate the efficacy of alpha-1 blocker in the treatment of premature ejaculation.

**Material and Methods** All patients admitted to the Urology outpatient with premature ejaculation and lower urinary symptoms were evaluated. After detailed investigations, 35 patients without erectile dysfunction and any sexual problems were involved the study. All patients were treated with terazocin 5 mg daily for a month. After this period, patients were re-evaluated and questioned their ejaculation problem. The results were classified as cure, improvement and unsuccessful.

**Results** The average age's of patients was 39.9 ± 9.2 year old. At 1st month control, 9 patients (25.7%) were cured, 15 (42.9%) showed improvement. In 11 (31.4%) patients, the treatment was ineffective.

**Conclusion** Alpha-1 blockers should be keep in mind as alternative medications in the treatment of premature ejaculation.

#### P-170

### SSRI and sexual function

*G. Corretti, Italy; C. Basile Fasolo*

**Introduction and Objectives** SSRIs may interfere with normal sexual response in many ways. Aim of the present study was to clarify this effect on a population of patients referring for a sexual disorder.

**Materials and Methods** 175 consecutive outpatients (male and female) observed between November 2000 and July 2002 in a clinic of sexology. Patients were divided in four diagnostic groups: Sexual Dysfunction, Paraphilia, Gender Identity Disorder, Sexual Disorder non Otherwise Specified. The secondarily of the Disorder in relation to the treatment with SSRIs was evaluated. Demography, general medical, psychiatric and sexual history, drugs, smoking, abuse and alcohol, physical examination, blood and hormonal profile were collected in all the patients. In addition to this, there were administered SCID (Structured Clinical Interview for DSM-IV Axis I Disorders), a modified-SCID for sexual disorders e and a paper for SSRIs treatment (current and lifetime).

**Results** Our data showed no correlation about the sexual disorders due to SSRIs treatment, except for Retarded Ejaculation, where was found an high correlation (p=0.000).

**Conclusions** Despite various authors report interference of serotonergic drugs with sexual response cycle, revealing dysfunctions in more than one level (desire, excitement, orgasm), our data seem to point out the interaction between serotonin and sexuality on the orgasm and ejaculation phases. Desire and excitement disorders may be secondarily induced by the orgasm dysfunction.

Further studies on widely population could confirmed this hypothesis.

#### P-171

### Non-Drug Therapy for Male Sexual Dysfunction

*E. Koulchavenia, Russia; V. T. Khomyakov*

**Material and Methods** 24 patients with sexual dysfunction were treated in Urogenital Dpt: insufficient erection (18), premature ejaculation (6); 2 patients in addition - small size of the penis. Mean age - 34,3 years. Clinical examination: digital rectal inspection, tests of prostate secretion, assessment of nocturnal penile tumescence and rigidity. Treatment conducted with original device permitting to effect by an infra-red laser radiation on penis in passive erection.

**Results** Spontaneous erections were recovered in 21 (87,5%) patients; in 18 (75%) - adequate erections have appeared, sufficient for normal coitus; the time of coitus have increased in 6 patients. Patients with micropenia through 2 months have received a repeated rate of treatment, therefore length of the penis in a quiet condition at one was

increased from 4 up to 4,5 cm (on 12,5%), at other - from 3 up to 4 cm (on 33,3%).

**Conclusions** We consider a laser irradiation of penile blood a perspective method of male impotence therapy.

### P-172

#### A New Comprehensive Alternative Approach in Treating Premature Ejaculation in Conservative Muslim Society Like Pakistan

*F. Nasim Bhatti, Pakistan*

**Objectives** To find the new comprehensive alternative treatment of premature ejaculation in conservative Muslim society like Pakistan where it is the most common sexual problem. **Material & Methods** Premature ejaculation is most common sexual dysfunction in conservative Muslim society living in pro-western social setup like Pakistan where it is cognized as surat-i-anzal. 630 patients of early ejaculation were treated at Nasim fertility center Lahore, Faisal Abad and Islam Abad during last one year. Diagnostic work included detailed history and basic lab tests; Age was between 25- 35. On detailed history patients attributed the dysfunction to excessive masturbation 35% and to excessive intercourse with girls and sodomy including masturbation 65%. All the sexual activities were thought great sin and immoral religiously and were performed in great hurry and worry. This led to sexual neurosis and early ejaculation. The cause of this most common sexual dysfunction in conservative Muslim society are, sexual frustration due to late marriage, sexual stimulation in pro western social setup where Islamic norms on sexual behavior are not observed, extramarital sexual activity and even masturbation is performed in great haste and worry and guilt feeling is always there due to Islamic inhibition of such activities this leads to sexual neurosis putting the reflexes to hasty ejaculation resulting in premature ejaculation. Behavioral sex therapy approaches were not accepted due to association of depression and anxiety to the varying extend, low education wrong education by quacks that it is a serious disease to be treated by costly medicines, quick response was desired and over half of the patients had married few days to few weeks back and there was fear of divorce from the wife. In my new comprehensive alternative approach after full assent on the first visit the combined treatment option by using medicines and different ejaculation controlling techniques were used for 8 weeks. Medicines were then tapered off and patient was advised to maintain control on ejaculation by regular increased sexual activity and by the techniques as advised. I have used this technique on 440 patients during last one year at my Nasim fertility center Pakistan with excellent results.

**Conclusion** The new alternative treatment is most effective and rapid solution to the premature ejaculation problem in conservative Muslim society like Pakistan. This is also the treatment of choice for premature ejaculation.

### P-173

#### Sequential Male Orgasm

*M. C. Vargas, Brazil*

**Group of Studies** We attended 206 men during 3 months at the NUCLEO DE ESTUDOS DE SEXOLOGIA E GERIATRIA. From this group we find 13% of them that get more than one orgasm. This happens during only one coitus and these men have only one erection; for this reason we call this sequential orgasm. They referred one mini ejaculation in almost several orgasm sensation. We divided this group in two subgroups. Our initial group of studies is consisted by 9 men with age between 15 is till 18 and average age medium of 16 years old.

**Age of the Group** In the old group we have only men with age of 37 till 40 years old. The average median age its was 39 years old. We observed that its more easy for the oldest group to get sequential orgasm. They get orgasm with ejaculation or without but they cannot referred witch one it is the best sensation.

**Methods** We study this group by observation at the clinic, and by the history told by this patients at the office. The young group of men get orgasm 3,5 times without loose erection. These results we observed at office. They referred a number of 5,5 orgasm like an average at home. The orgasm time's duration was around 12 minutes. The oldest group get 3,5 orgasm at home and 3 orgasm at office. The orgasm time's duration it was around 17 minutes. The oldest group can not say with it is the best sensation. Someone referred that the best sensation is when their partner get orgasm too, or when they have final ejaculation and others even without ejaculation.

**Conclusion** We can say that 13% of men can have more than two orgasm. This sensation can be the biggest sensation and often happens together with ejaculation or without ejaculation in the oldest group. We observed that the time between one orgasm to an the other one can takes sometimes 20 seconds till 8 minutes.

## Female Sexual Health and Dysfunction

### P-174

#### Sexual Problems: Why Women Call a Telephone Help-Line?

*S. Papaharitou, Greece; A. Portseli, M. Iraklidou, H. Grigoropoulos, A. Papadimitriou, L. Athanasiadis*

**Introduction** During the last few years, national helplines for people with sexual problems have been developed in several European countries. Although the helplines are available to everyone, published data have focused on males' callers. The objective of this study is to report female callers needs, attitudes and problems as reported through a national telephone help-line.

**Methods** The study was based on calls received during a 41 months period of operation of the helpline. All calls were included in the statistical analysis.

**Results** During the first 41 months the phone line has received 12885 telephone calls. Only 21.6% came from female callers (mean age 42.5+12.3y). 46.2% of the women's calls were reporting female sexual dysfunction (FSD), while the rest involved queries about their partners' and children problems (42.5% and 11.3% respectively). The main FSD problem was orgasmic dysfunction (18%), lack of sexual desire (11%) and dyspareunia (4%). The mean duration of FSD was 37.4+8.4 months. Sexual practices information (22%) and relationship problems (11%) were also common reasons to call the line. Regarding their partners' problems, the most common were ED (48%) and premature ejaculation (14%), in percentages not different from those reported by the male callers (54% and 18% respectively).

**Conclusions** The low number of female callers may reflect cultural attitudes and social believes. Women's role in sexual health however, is extremely important as perceived from the present study: they call not only for their own sexual problems, but also their partners' and children' problems. The long period before seeking help, clearly demonstrates the lack of sexual education and specialized health services.

### P-175

#### YC-1 Enhances Suboptimal Relaxations in the Rat Isolated Vagina

*A. Giraldi, Denmark; K.-E. Andersson, P. Hedlund*

**Objectives** YC-1 has been shown to stimulate soluble guanylate cyclase (sGC) independently from NO and to improve the catalytic rate of the enzyme. The aim of the present investigation was to study if YC-1 could modulate nerve-mediated relaxations in the rat vagina.

**Design and methods** Smooth muscle preparations from the distal vagina from SD rats were used. Nerve-induced relaxant responses were obtained in oxytocin-contracted (1  $\mu$ M) preparations pretreated with 1  $\mu$ M of propranolol, indomethacin, phentolamine and scopolamine. The effect of YC-1 (10  $\mu$ M) was investigated on submaximal relaxant responses.

**Results** At optimal stimulation parameters, frequency-dependent and L-NNA-sensitive relaxant responses with a maximum of  $69 \pm 8\%$  at 16 Hz were produced. In comparison, relaxations of  $25 \pm 6\%$  were obtained at 16 Hz during submaximal activation of nerves. After pretreatment with YC-1, 60 to 90% increases of submaximal relaxant responses were obtained at the investigated frequencies. At 16 Hz, a mean relaxation of  $45 \pm 8\%$  was recorded in the presence of YC-1.

**Conclusions** YC-1 enhances submaximal relaxations in the rat isolated vagina. An increased activity of the sGC, producing synergistic effects with endogenous NO, may be useful in the treatment of some female sexual disorders.

#### P-176

##### Vardenafil Increased Blood Flow in the Vagina and Clitoris of Female Dogs in Response to Pelvic Nerve Stimulation

*J. Angulo Frutos, Spain; E. Bischoff, B. Cuevas, A. Fernandez, P. Cuevas, I. Saenz de Tejada*

**Objectives** Increased blood flow in the genitalia is thought to be essential for the female sexual response, possibly mediated through the NO/cGMP pathway in smooth muscle cells. This study evaluated the effects of vardenafil, a potent and highly selective PDE5 inhibitor, on blood flow in the vagina and clitoris of female dogs.

**Design and Methods** Blood flow in the vagina and clitoris of anesthetized female dogs was measured by laser doppler. The effect of vardenafil i.v. (1mg/kg) on blood flow changes induced by pelvic nerve electrical stimulation (PNES) were determined at 5 and 10Hz.

**Results** PNES produced consistent and frequency-related increases in vaginal and clitoral blood flow. The magnitude and duration of blood flow responses were variable between animals but relatively constant within animals. Vardenafil (1mg/kg) significantly potentiated blood flow responses to PNES in the vagina (381.4% of control response at 5Hz and 206.2% at 10 Hz;  $p < 0.01$ ,  $n=6$ ) and clitoris (379.4% and 238.5%;  $p < 0.01$ ,  $n=6$ ) 20 mins. after administration. After 50 mins., blood flow increases were maintained in the vagina (224.5% and 181.0%,  $p < 0.01$ ) and in the clitoris (294.8% and 258.9%;  $p < 0.05$ ). Similarly, after 80 mins., blood flow enhancement in the vagina (209.5% and 156.9%;  $p < 0.05$ ) and clitoris (268.9% and 194.9%;  $p < 0.05$ ) were still maintained.

**Conclusions** Vardenafil effectively potentiated the blood flow responses to PNES in the vagina and clitoris of this female dog model. Therefore, vardenafil has the potential to be developed as a treatment for certain forms of female sexual dysfunction, in addition to male erectile dysfunction.

#### P-177

##### A New Validated Questionnaire in the Clinical Evaluation of Female Sexual Dysfunction (FSDQ): An Italian Proposal

*F. Fusco, Italy; C. Imbimbo, N. Longo, C. Simonelli, S. Di Meo, P. Verze, V. Mirone*

**Introduction** In this paper the first version of Sexual Female Dysfunction Questionnaire (SFDQ) is proposed by a multidisciplinary panel of experts.

The aim of our research is to present a brief and self-administered questionnaire to inquire into female sexuality and, specifically, the presence/absence of sexual dysfunctions.

A multidisciplinary team of specialists ( urologists, gynecologists, sexologists and statisticians ) was formed to identify the areas for investigation as well as related topics.

**Methods** The questionnaire was drawn up in such a way that a broad picture of crucial information for diagnostic purposes could be compiled. The items have been subdivided into clearly defined sections.

The first section gives general informations about the respondents involved in the investigation.

The second section provides informations relating exclusively to the

sex life of respondents, such as sensations, behaviour of couples and physiological aspects.

The third section gathers information about the sexual dysfunctions of respondents and consists of two subsections each of which contains multiple-choice questions.

The sample consisting of 326 respondents was divided into two sub-samples: a) the experimental group containing 91 women with sexual disorders was selected from the Institute of Clinical Sexology in Rome; b) the control group consisting of 235 women volunteers was randomly selected.

**Results** The data from this initial phase indicate that the majority of subjects understood the questions and response options, confirming that the questionnaire can be easily administered. The two groups differ significantly in many disorders of sexual response: desire, arousal, lubrication, orgasm and satisfaction. There is also a statistically significant group difference about sexual pain disorder and sexual aversion disorder.

**Conclusions** The psychometric parameters measured by this initial evaluation study show the effectiveness and the considerable diagnostic utility of this questionnaire that can be used to assess sexual female function/dysfunction.

#### P-178

##### Somatosensory evoked potentials in patients with multiple sclerosis and female sexual dysfunction

*R. DasGupta, United Kingdom; G. Kanabar, O. Wiseman, C. Fowler*

**Introduction** Recent reports suggest that pudendal somatosensory evoked potentials (SEP) are useful in assessing female sexual dysfunction (FSD) due to multiple sclerosis (MS). It is unknown whether tibial SEPs (less invasive) are correlated with pudendal SEPs, and whether SEPs reflect the extent of sexual dysfunction.

**Methods** 19 women with symptoms of FSD after onset of MS completed a validated sexual function questionnaire (SFQ), and then underwent pudendal and bilateral tibial SEPs by one investigator (blinded to the SFQ score). The cathode for pudendal SEP was placed on the hood of the clitoris, and anode on the labia minora.

**Results** 16 patients had an SFQ score  $< 87/121$ , suggesting abnormal sexual function. There was good correlation between pudendal (mean 53.7ms) and tibial SEPs (mean 53.6ms left tibial, 52.7ms right tibial) - 11 abnormal, 5 normal, 3 absent. However there was no correlation between SEPs and SFQ scores (neither with total nor specific domain scores).

**Conclusion** Tibial SEP can be used as a predictive test for cases where abnormal pudendal somatosensory innervation is suspected. However lack of correlation with SFQ score may reflect the diversity of FSD.

#### P-179

##### Evaluation of Female Sexual Function - Measurement of Vaginal and Labial Oxygen Tension

*F. Sommer, Germany; U. Engelmann*

**Objectives** Female sexual arousal disorder may, in part, be due to decreased pelvic blood flow. Therefore, the goal of this study was to develop a simple non-invasive reproducible technique for the measurement of vaginal and minor labial blood flow.

**Design & Methods** Twelve healthy young adult females were tested. They masturbated using a modified Clark oxygen electrode, to obtain the partial oxygen pressure (pO<sub>2</sub>).

**Results** As soon as self-stimulation was initiated, an increase in the oxygen tensions occurred. Just before orgasm a further increase was seen. Labial pO<sub>2</sub> measurement decreased relatively rapidly soon after orgasm.

**Conclusions** In the past, changes in female sexual arousal responses have been difficult to evaluate and quantify clinically. We developed a simple non-invasive reproducible technique for the measurement of vaginal and minor labial blood flow. Age-based and cycle-dependent nomograms now can be produced for vaginal and labial blood flow using this method.