

Abstracts

QOS-56. THE PREVALENCE OF FEMALE SUBFERTILITY AFTER ‘PACKER’ CHEMOTHERAPY IN PNET TUMOURS: 19 YEAR FOLLOW UP STUDY FROM A SINGLE CENTRE

Soumya Pandala^{1,2}, Joana Serra-Caetano^{1,3}, Olivia Jones^{1,4}, Kim Phipps¹, and Helen Spoudeas¹; ¹Department of Neuroendocrinology and Late Effects at Great Ormond Street and University College Hospitals, London, UK; ²University College London, London, UK; ³Endocrinology Unit, Coimbra Pediatric Hospital, Centro Hospitalar e Universitário de Coimbra (CHUC), Coimbra, Portugal; ⁴St George’s Hospital Medical School, London, UK

BACKGROUND: The PNET panEuropean studies were aimed at improving survival. Adjuvant “Packer” chemotherapy (CT) to craniospinal irradiation (CSI) in PNET3 led to a survival advantage and hence became standard care in PNET4. However, at 7y follow-up this was tempered by a reduced quality

of survival and in girls a suggestion of evolving gonadotoxicity. **AIM:** To assess the long term prevalence of premature ovarian insufficiency (POI) after ‘Packer’ CT for PNETs. **METHODS:** We collected FSH and hormone replacement (HRT) data on all girls presenting with PNET between 1.1.1995 and 31.12.2013 with at least 1 year follow-up. FSH > 25iu/l and/or HRT requirement were considered evidence of POI. **RESULTS:** 54 girls presenting with PNET at median (range) age of 6.0(0.5-15.2)y were aged 11.7(2.3-29.7)y at 3.7(1.2 to 19.7)y follow-up. Most 38(70%) had medulloblastomas, 21(39%) were metastatic and 13(24%) were infants. 50%(N27) relapsed 1.7(0.4-10.9)y later and 17(32%) died. 45(83%) had CSI and CT, 6(11%) had CSI alone (all given CT for relapse) and 3(6%) had CT alone. 38/54 (70%) had available data, and 17/38(45%) of these had POI, whilst a further 20(37%) were still under 10y. None had gonadotropin deficiency. **CONCLUSION:** The prevalence of POI after treating PNETs with ‘Packer’ CT + CSI is especially high and likely to increase. By contrast gonadotropin deficiency isn’t a radiation consequence. Families should be warned that girls are likely to be infertile and referral to endocrine units for pubertal induction should be routine. Future trials should include long term assessments of the impact on fertility of different CT regimens.