QL-08A REVIEW OF PUBLICATIONS REGARDING HOW ANTI-NEOPLASTIC TREATMENTS IMPACT THE FERTILITY OF ADULT PATIENTS WITH BRAIN CANCER: REALITIES AND RESOURCES FOR REAL-TIME TREATMENT PLANNING

Erin Dunbar, Cara Cimmino, Gena Volas-Redd, Howard (“Nick”) Chandler
INTRODUCTION: There is an unmet need regarding how anti-neoplastic treatments impact the fertility of adult brain cancer patients. For numerous reasons, the paucity of literature is 1) predominantly retrospective, 2) address-es either non-CNS cancers or sequela of childhood cancer treatment, and 3) minimally addresses newer anti-neoplastic treatments. This unmet need exists despite growth within the field of onco-fertility, sub-specialty guidelines on supportive care & survivorship, and select coverage within the Affordable Care Act. Notably, related social media forums, with little medical oversight, are growing. OBJECTIVE: Authors searched authoritative databases and re-sources to 1) summarize the existing English-written literature, 2) describe the current unmet needs, and 3) collate practical information immediately impacting "real-time" treatment planning and counseling. METHODS: Databases were searched for English-written publications before 6/14 regarding adults >13yo. 1st-tier search combined the key/root terms parameters: "neoplasm/cancer", "infertility/fertility", "sexual dysfunction/function/behavior", "drug therapy/antineoplastic/chemotherapeutic biologic/anti-angiogenic/immunotherapy/targeted therapy". 2nd-tier search excluded "pituitary neoplasm/cancer", "surgery/radiation" and articles of infertility caused by cancer, other cancer interventions, primary infertility causes. 3rd-tier search further refined for: "brain/CNS", "glioma/(subtypes)"., and names of common anti-neoplastic agents. Exclusions included RESULTS: PubMed, Ovid (Cochrane, Medline, others), EBSCO (pharmaceutical/psychology), CINAHL, Web-of-Science, Toxline, UpToDate, sub-specialty associations, and government-sponsored/private entities. To-date, >390 citations produced 0 Meta/Systematic-Reviews, 2 RCTs, 2 Observational Trials, 18 Reviews, 200+ Cases/Other. Articles predominantly addressed systemic cancers, childhood cancer survivors, & long-term sequela. Major themes in-cluded the scope of the problem, barriers to evaluation/treatment, need for more research, and either spontaneous or post-fertility-sparing/restitution success. Strikingly, very little information was added with 3rd-tier refined search. Notably, since late 2012, a few observational studies, focused-group surveys, and guidelines have provided valuable information. CONCLUSION: At presentation, the authors will provide practical interdiscipli-nary resources for providers to use and share with patients, inclusive of medical, educational and financial/insurance aspects. Comparisons/contrasts with social media will be made.