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Introduction: Approximately 10% of the pituitary adenomas can have an aggressive behavior and 0.2% can present metastasis, being classified as pituitary carcinomas. **Objective:** Evaluate the tumor control obtained by anti-neoplastic therapies that are still little explored in the context of carcinoma and aggressive pituitary tumors. **Methods:** A systematic review according to the Joanna Briggs Institute has been conducted. We have included studies that evaluated patients with carcinoma or aggressive pituitary tumors who underwent treatment with at least one of the following therapies: *Temozolomide, VEGF Inhibitors, Peptide Receptor Radionuclide Therapy (PRRT), Everolimus, Immune Checkpoint Inhibitors, EGFR Inhibitors, Capecitabine and temozolomide (CAPTEM)*. The main outcome assessed by the study was the frequency of tumor response according to the RECIST protocol classification. Embase, Medline, LILACS, and CENTRAL were our source databases. Proportional meta-analyses were performed to calculate the overall frequencies of complete remission (CR), partial remission (PR; minimum shrinkage of 30%), stable disease (SD) and progression disease (PD). We used Stata Software 18, the updated command “metaprop_one” and fit the logistic normal random effect model. **Results:** None clinical trial was found, and sixty case report/case series were included. The most frequent therapy used was temozolomide (101 patients), followed by PRRT, pembrolizumab, lapatinib, CAPTEM, bevacizumab, ipilimumab/ nivolumab and everolimus, with respectively 9, 6, 6, 6, 4, 3 and 1 individuals. The majority of patient in temozolomide studies had prolactinomas (40/101), followed by Cushing’s disease (25/101), the overall frequency of CR with this drug was 1% ($\chi^2=2.7$; $p=0.049$, Predictive Interval (PI) 1% to 93%, 7 events), PR was 45% ($\chi^2=1.8$, $p=0.091$, PI= 8-89%, 46 events), SD 14% (CI 95%=5 a 33%, 20 events), and PD was 25% (95%CI: 14-40%, 28 events). *Two patients receiving CAPTEM presented CR, no other studies presented this outcome. In the PRRT studies, the overall frequency of PR was 22% (95%CI 6 to 58%) and PD was 44% (95%CI 18 to 75).* **Conclusion:** Temozolomide has been the therapy most frequent used in the management of carcinoma and aggressive pituitary tumor, being PR the most frequent outcome, followed by PD and SD, with low percentage of CR. The other drugs approached by this review showed similar poor response although they were less tested in the context of this neoplasms.

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EFFECT OF ANTI-NEOPLASTIC THERAPIES ON CARCINOMA AND AGGRESSIVE PITUITARY TUMORS : A SYSTEMATIC REVIEW AND META-ANALYSIS

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