

Opioid Use and Postoperative Pain After Oocyte Retrieval

Objective:

To quantify opioid use after oocyte retrieval and determine the patient- and procedure-specific characteristics that predict post-retrieval pain and opioid use.

Design: Cross-sectional survey with medical chart review

Materials and Methods:

Patients who underwent an oocyte retrieval and returned for a fresh embryo transfer at a university-based infertility center from 4/2017 – 8/2017 were recruited. Patients with an allergy to opioids or history of chronic opioid use were excluded. On the day of embryo transfer, patients completed a survey to ascertain daily opioid use and pain following retrieval (0 – 10 numeric rating scale). The primary outcome was total number of opioid tablets consumed in the days following oocyte retrieval. Secondary outcomes included pain severity and the use of non-opioid pain relievers following oocyte retrieval. Multivariate logistic regression was used to determine the patient- and procedure-specific factors associated with opioid use and pain severity. Resultant odds ratios with 95% confidence intervals were adjusted for BMI, number of follicles and amount of intra-operative anesthetic used.

Results:

A total of 197 patients were recruited. The median amount of opioids prescribed was 5 oxycodone tablets (Range 2 – 15). Seventy-one patients (36.0%) filled their opioid prescriptions. Most patients did not use any opioids (n=141, 71.2%) following retrieval. Of those who filled their prescriptions, patients reported using a median of 2 oxycodone tablets, leaving an excess of 3 tablets per patient. A total of 142 (72.1%) patients used non-opioid pain relievers such as acetaminophen and 60 (30.5%) used non-pharmacologic methods including warm compresses for pain control. Patients reported the worst pain on the day of retrieval. Prior abdominal surgery, parity, BMI \geq 30, the amount of intra-operative anesthetic required, and the need for opiate analgesia in the recovery room were identified as significant predictors of opioid consumption post-oocyte retrieval. A history of chronic pain or dysmenorrhea, length of the procedure, and number of follicles were not predictive of opioid consumption. Patients with a history of endometriosis, prior abdominal surgery or more oocytes retrieved reported more pain post-oocyte retrieval.

Conclusions:

The majority of patients undergoing oocyte retrieval do not require opioids post-procedure. Opioid prescriptions following oocyte retrieval should be minimized, and a personalized approach for prescribing opioids for postoperative pain should be implemented.