A six-year retrospective analysis of the incidence of wet taps during epidurals and combined spinal/epidural anesthesia for Caesarean Section patients from 2017-2023

The reporting of wet taps and post dural puncture headache (PDPH) incidence here at University Hospital at Downstate (UHD) has been variable over the past years. Because teaching hospitals have anesthesiologists with various levels of training, the rates in teaching hospitals are generally higher than in hospitals without trainees. The Society for Obstetric Anesthesia and Perinatology (SOAP) has reported that the acceptable rate of wet taps and PDPH is 2-4% and 2% respectively, for teaching institutions. The objectives of this project were to determine the current incidence of wet taps and PDPH in Caesarean Section (C/S) patients, and determine factors that result in higher wet tap and PDPH incidence rates. A retrospective review of obstetrical patient charts was performed from 2017 to 2023 at a single center academic hospital. Patients were included if they had a C/S with an epidural or combined spinal/epidural (CSE) block performed. Data collected includes patient demographics, BMI, resident training level, # of procedure attempts, size/type of needle, occurrence of wet taps/PDPH, use of blood patch, medications, and pre-op labs. The results of data reviewed to date show that in a cohort of 1579 C/S patients performed with neuraxial blocks from 2017-2023, there were 44 wet taps. The incidence of wet taps per annum is between 2.18% to 3.56% (90% CI). Of the 44 who had a wet tap, 31.8% (14/44) reported a PDPH. 78.6% (11/14) of the patients who had a PDPH needed intervention with a blood patch. The variables with the greatest correlation to wet tap rates were resident training level and # of procedural attempts. The average incidence of wet taps from 2017 to 2023 was 2.69% which is within the acceptable range reported for teaching hospitals. By understanding factors that potentially contribute to wet taps during neuraxial anesthesia, the anesthesia team can gain insight on how to adjust practices and improve the standard of care for obstetrical patients.