Cerebrospinal fluid disturbance

Cerebrospinal fluid disturbance (CSFD) is a well-known complication after occipitocervical decompression (OCD) in patients with Chiari malformation type I (CMI). There is scarce data focusing on preoperative patients' factors predisposing to development of CSF disturbance. The aim of this study is to evaluate a prognostic value of some patients' factors in the prediction of CSFD after OCD in CMI patients.

A 10-year (2003-2013) retrospective study of all OCD in patients with CMI performed at Sahlgrenska IC, Sahlgrenska University Hospital, Sweden. A total of 52 consecutive patients were obtained from the operation database and we excluded one patient who was previously diagnosed with normal-pressure hydrocephalus. Data regarding preoperative age, body mass index, gender, degree of tonsillar herniation and syrinx were registered. Development of CSFD after OCD was noted.

Of the 51 patients reviewed, six had CSFD after OCD and were managed using a form of CSF diversion procedure. All of the patients who developed CSFD were females. They had a mean body mass index of 32.3 compared to a mean of 24.3 in patients without CSFD ($p = 0.0011$). There was no difference between the two groups with regard to the other examined patient factors.

CSF diversion was needed in six consecutive adult Chiari malformation type I patients who underwent occipitocervical decompression. All patients with postoperative CSFD were female and their mean BMI was significantly higher than patients without this complication [1)].

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Almotairi FS, Tisell M. Cerebrospinal fluid disturbance in overweight women after occipitocervical decompression in Chiari malformation type I. Acta Neurochir (Wien). 2016 Mar;158(3):589-94. doi: 10.1007/s00701-015-2678-z. Epub 2016 Jan 7. PubMed PMID: 26743916.