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**MINIMALLY INVASIVE SURGICAL TREATMENT
OF ACUTE EPIDURAL HEMATOMA**

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Relevance. Acute epidural hematoma is one of the most common secondary brain neurosurgical skull injuries, accounting for 30% of intracranial hematomas. Bleeding is mainly due to ruptured meningeal middle artery. Epidural hematomas often lead to neurological disorders, and according to different authors, from 5% to 30% of all cases of epidural hemorrhages are fatal. But if simple epidural hematomas are treated immediately, a good prognosis is often achieved.

Until now the main methods of treatment of epidural hematomas are osteoplastic trepanation with removal of the bone flap and resection craniotomy. Craniotomy has negative psychological effects on patients such as fear, anxiety, and depression. Most of the patients lacked confidence to enter into marital relationships or perform jobs and social activities due to perceived disability following craniotomy. But there are other, minimally invasive methods of treatment. Application of minimally invasive surgery attracts increasing attention from neurosurgeons.

Aim: to analyze methods of surgical treatment of acute epidural hematoma.

Materials and methods. The study analyzed 21 case histories of the patients with acute epidural hematoma for the period 2022-2023 was carried out in «Minsk City Emergency Hospital». A retrospective analysis of case histories and CT - scan data was performed.

Results and their discussion. Among adult (n=21) the average of the patients $56 \pm 2,4$ years, including women 4 (19%), men 17 (81%). Craniotomy was performed in 85,7% of cases (hematoma volume $52 \pm 2,8$ ml), endoscopic removal of the hematoma – 14,3% of cases (hematoma volume $29 \pm 1,7$ ml). For endoscopic operation a manual skull driller was used to drill through the scalp and skull, and hematoma was aspirated as much as possible using a brain puncture needle. Surgery time is: 90 - 100 minutes (for craniotomy), 25 – 40 minutes (for endoscopic removal of the hematoma). No surgical complications occurred, such as increased hematoma volume or functional impair during endoscopic removal of the hematoma.

Conclusion: the most common method for treatment of epidural hematomas is craniotomy (85,7% of cases). Endoscopic removal of the hematoma used in 14,3% of cases. The indications for minimally invasive surgery epidural hematoma volumes ranging between 20 ml and 40 ml. Minimal invasive surgery has many advantages such as small incisions and quicker operative time. It has good curative effect on treatment of the acute epidural hematoma with a small amount of bleeding (less than 40 ml) and can avoid craniotomy.