

6. ARTIFICIAL INTELLIGENCE IN SUBDURAL AND EPIDURAL HEMATOMAS.

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Introduction. Subdural hematoma (HSD) and epidural hematoma (HED) are neurosurgical emergencies that require medical supervision and surgical treatment to be removed. Imaging diagnostic techniques such as Nuclear Magnetic Resonance (NMR) and Computed Tomography (CT) are used to highlight subdural and epidural hematomas, which produce high-quality images and details of the affected brain structures that allow surgery to be planned. Enhancing (NMR) and (CT) imaging with the application of engineering and artificial intelligence techniques, such as neural networks (ANN), vector support machines (SVM), and deep learning algorithms, provides complex computer vision with an optimal rapid diagnostic system that allows physicians to increase the accuracy of diagnosis and treatment.

Aim of the study. Description of the application of artificial intelligence in the diagnosis and treatment of subdural and epidural hematomas.

Materials and methods. A systematic search of the literature in major databases such as Hinare, PubMed, NCBI was performed using the keywords "artificial intelligence", "subdural hematoma" and "epidural hematoma", of which 268 studies out of 2870 were found that have used artificial intelligence (AI) algorithms in diagnosis, surgical treatment, postoperative evaluation, and intraoperative care.

Results. Artificial intelligence techniques applied to improve NMR and CT imaging in subdural hematomas (HSD) and epidural hematomas (HED) have been listed.

Conclusion. Artificial intelligence (AI) at this time and in the future will be able to provide new opportunities for diagnosis, treatment, and risk avoidance during surgery.