Record Nr. UNINA9910765544803321 Autore Scerrati Alba Titolo Advances in cerebral aneurysm treatment / / Alba Scerrati, Giorgio Mantovani Pubbl/distr/stampa London:,:IntechOpen,, 2023 **ISBN** 1-83768-737-4 Descrizione fisica 1 online resource: illustrations Disciplina 616.133 Soggetti Intracranial aneurysms - Rupture Intracranial aneurysms - Surgery Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di contenuto 1. A New Paradigm: How to Study the Exact Location of a Paraclinoid Aneurysm and the Cavernous Sinus in the Preoperative Stage through Imaging -- 2. Aneurysmal Subarachnoid Hemorrhage and Early Brain Injury: A New Pathophysiological Perspective -- 3. The Use of Artificial Intelligence in the Management of Intracranial Aneurysms -- 4. Clinical Application of Transcranial Doppler in Cerebrovascular Diseases -- 5. Keyhole Microsurgery for Cerebral Aneurysms -- 6. Clipping Strategies and Intraoperative Tools to Detect Aneurysm Obliteration and Cerebral Vessel Patency -- 7. Perspective Chapter: Role of Direct Surgery for Recurrent Aneurysms after Endovascular Treatment. Sommario/riassunto As diagnostic and functional neuroimaging advances, the choice of the best patient-tailored treatment for cerebral aneurysm becomes far more difficult. New technologies that can help identify the most suitable therapy include machine learning algorithms to process big data, robotic applications for interventional procedures, and dynamic vascular flow models. Different biological and epidemiological parameters have been delineated as prognostic factors that add a fundamental piece of information to the decision of whether to proceed with surgery, endovascular treatment, or a combination of both. With technical improvement and prolonged patient life expectancy, recurrent cerebral aneurysm is becoming more common. To deal with the

complex issue of aneurysm re-intervention, a clear definition of the clinical and radiological outcomes is essential. This book provides a

comprehensive overview of the currently emerging innovations in the treatment of cerebral aneurysms, from their pre-operative holistic assessment to long-term follow-up, focusing on the opportunities provided by the newest technologies.