

Profil Karakteristik Klinis dan Temuan CT-Angiography, MR-Angiography, dan Digital Subtraction Angiography pada Kelainan Brain Arteriovenous Malformation di Departemen Bedah Saraf FKUI-RSCM Periode 2018-2022 = Clinical Characteristics Profile and Findings of CT-Angiography, MR Angiography, and Digital Subtraction Angiography of Brain Arteriovenous Malformation in the Departement of Neurosurgery FKUI-RSCM Period 2018-2022

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Abstrak

Latar Belakang

Brain Arteriovenous Malformation (BAVM) merupakan salah satu anomali vaskular pada otak yang dapat menyebabkan berbagai komplikasi. Baku emas untuk mendeteksi BAVM adalah dengan digital subtraction angiography (DSA), namun modalitas ini tidak tersedia secara luas di Indonesia. Penelitian ini disusun untuk memberikan gambaran profil karakteristik klinis dan temuan dari DSA, CT-Angiography (CTA), dan MR-Angiography (MRA) dalam sesuai penilaian Grade Spezler-Martin.

Metode

Data rekam medis dan hasil pencitraan kasus BAVM dengan DSA disertai atau tidak pemeriksaan MRA atau CTA didapat dari Departemen Bedah Saraf RSUPN Dr. Cipto Mangunkusumo (RSCM) pada periode 2018-2022. Kasus yang memenuhi kriteria inklusi dan eksklusi disertakan penelitian deskriptif obserasional ini.

Hasil

Terdapat total 37 subjek pada penelitian ini. Kasus BAVM didominasi oleh laki-laki (62,2%) dan lebih banyak pada pasien dewasa berusia >18 tahun (75,7%). Hampir seluruh pasien menggunakan jaminan kesehatan BPJS (94,6%) dan asal rujukan terbanyak adalah dari Jabodetabek (54,1%). Gejala terbanyak pada pasien adalah nyeri kepala 59,4%), diikuti dengan kesadaran terganggu (37,8%) dan kejang (35,1%). Temuan DSA tidak berbeda jauh dengan temuan MRA dan CTA. Hampir seluruh pasien memiliki feeding artery [DSA (97,3%); CTA dan MRA (100%)], mayoritas terdapat lokasi eloquent [DSA (67,6%); MRA (71,4%); CTA (80%)], berukuran sedang (3-6 cm) [DSA (59,5%); MRA (71,4%); CTA (40%)], dan memiliki drainase vena superficial [DSA (59,5%); MRA (71,4%); CTA (40%)]. Presentase grade SM terbanyak adalah grade III (31,6%), diikuti oleh grade IV (28,9%) dan grade II (21,1%).

Kesimpulan

Pengetahuan akan profil karakteristik klinis dan profil temuan pencitraan dapat memberikan pengetahuan lebih untuk membantu dokter menunjang diagnosis BAVM.

.....**Background**

Brain Arteriovenous Malformation (BAVM) is a vascular anomaly in the brain that can cause various complications. The gold standard for detecting BAVM is digital subtraction angiography (DSA), but this modality is not widely available in Indonesia. This study was designed to provide an overview of the profile of clinical characteristics and findings from DSA, CT-Angiography (CTA), and MR-Angiography (MRA) in accordance with the Spezler-Martin Grade assessment.

Method

Medical record data and imaging results of BAVM cases with DSA accompanied/not by MRA or CTA examination were obtained from the Department of Neurosurgery, RSUPN Dr. Cipto Mangunkusumo (RSCM) in the 2018-2022 period. Cases that met the inclusion and exclusion criteria were included in this observational descriptive

study.

Results

There was a total of 37 subjects in this study. BAVM cases are dominated by men (62.2%) and are more common in adult patients aged >18 years (75.7%). Almost all patients use BPJS health insurance (94.6%) and the highest number of referrals is from Jabodetabek (54.1%). The most common symptom in patients was headache, 59.4%), followed by impaired consciousness (37.8%) and seizures (35.1%). DSA findings do not differ much from MRA and CTA findings. Almost all patients had a feeding artery [DSA (97.3%); CTA and MRA (100%)], the majority had eloquent locations [DSA (67.6%); MRA (71.4%); CTA (80%)], medium-sized (3-6 cm) [DSA (59.5%); MRA (71.4%); CTA (40%)], and had superficial venous drainage [DSA (59.5%); MRA (71.4%); CTAs (40%)]. The highest percentage of SM grade was grade III (31.6%), followed by grade IV (28.9%) and grade II (21.1%).

Conclusion

Knowledge of the profile of clinical characteristics and profile of imaging findings can provide more knowledge to help doctors support the diagnosis of BAVM.