

Pre-operative Repetitive Intralesional Sclerotherapy and Reconstructive Contour Resection of a Perioral Venous Malformation

Combining Angiography and MRI

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Patient history

A 5-year-old boy with enlarging mass on the upper lip and left midface. Besides severe disfigurement with psycho-social implications, also functional difficulties in speech, eating and drinking. Progressive course with painful recurrent thrombophlebitis.

Diagnosis

Dynamic contrast-enhanced 3D MR angiography showed a slow-flow venous malformation with individual slow-pooling cavernous cavities expanding throughout all soft-tissue components of the upper lip and cheek. A T2-weighted Turbo Inversion

Recovery (TIRM) sequence, also known as Turbo STIR demonstrated the extension of the malformation immediately before sclerotherapy [Fig. 1].

Treatment

Intralesional percutaneous sclerotherapy using 2 % Polidocanolfoam was performed under fluoroscopy-guidance at 2-month intervals [Fig. 2]. After six sessions of sclerotherapy, a decreased perfusion and volume-reduction of the expanding venous malformation was observed [Fig. 3]. Contour resection and reconstruction of the upper lip and

mouthcorner was then performed at the most "quiet" perfusion state and smallest possible extent of the lesion.

Comments

Six sclerotherapy procedures under general anesthesia were performed without clinically relevant side-effects. The final resection was conducted under regional exsanguination with the use of bowel clamps.

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Installation of Angio-MR MIYABI at the AKH. The angio table travels on rails to the MRI.



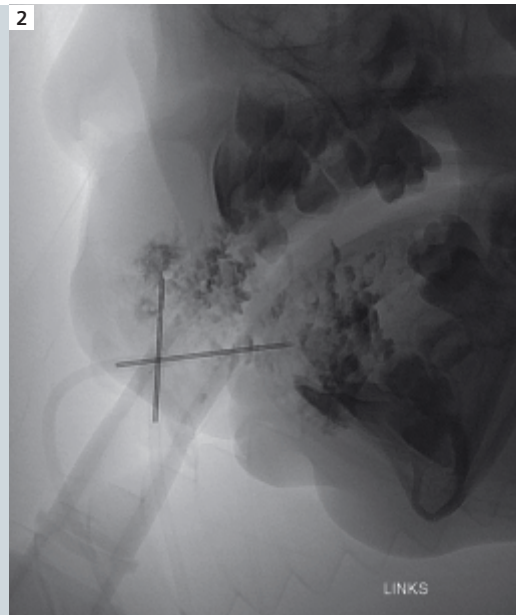
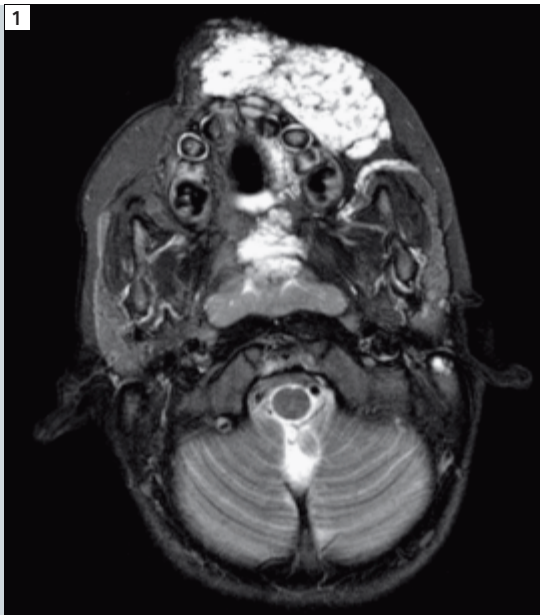
After the sclerotherapy the patient is transferred back to the MRI for a control examination.



4 Patient before the treatment of the large malformation on the upper lip.

5 Plastic result after six sessions of intralesional sclerotherapy.

6 Obvious clinical success only four months postoperatively.



1 Axial T2-weighted TIRM sequences demonstrated the extension of the hyperintense vascular malformation.

2 Fluoroscopy-guided sclerotherapy: The sclerosing agent mixed with 1 ml non-ionic contrast had been injected through two butterfly needles placed within the malformation. No extravasation is seen.

3 After four sessions of sclerotherapy, the malformation significantly diminished in size as seen on the MRI follow up. Note: there is another currently untreated malformation at the soft palate extending into the epipharynx.

