Vascular anatomy of little’s area in Children with Epistaxis

Abstract

Epistaxis in children originates in more than 90% of the cases from the anterior nasal cavity. In the majority of the paediatric population Epistaxis is due to trauma (Accidents, manipulation, secondary hemorrhages after surgery), bleeding disorders (v.-Willebrand’s disease, side-effects of medication), dry climate (low humidity, heating period), rhinitis and vascular anomalies. In rare cases it is due to hereditary syndromes, e.g. Osler-Weber-Rendu disease. In contrast to Epistaxis in adults blood pressure changes play no essential role in paediatric nosebleeds. This presentation analyzes the vascular anatomy of the anterior nasal septum (Little’s area) based on videoendoscopic findings in affected children. Videoendoscopies of 16 children could be analyzed for the study. Twelve of 16 children had a prominent vessel shining through the mucosa at the anterior or lower edge of the nasal septum and teleangiectic vessels appeared in 4/16 cases. The endoscopic examinations showed that the dominant vessels for the anterior septum was emerging from the floor of the nose, making a 90° turn cranially towards Little’s area. In contrast to most descriptions in literature, anastomoses with vessels deriving from cranial parts of the nose, i.e. from the anterior ethmoidal artery, could not be found. According to the findings of the present analysis, Little’s area therefore is predominately supplied by the septal branch of the superior labial artery and inferior septal branches of the sphenopalatine artery. Results in Epistaxis therapy might therefore be improved, if the respective terminal branches of these vessels can be obliterated successfully.

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Biography

Joerg Bachmann earned his medical degree in 1995 at Justus Liebig University in Gießen. In addition, after studying at the technical university in Darmstadt and the open university in Hagen, he obtained a diploma in electrical engineering. In 1996 he received his medical doctorate. After completing his training as a specialist in otorhinolaryngology, he has been working as a senior physician since 2002, and since 2015 as Assistant medical director in the ENT clinic Bad Lippspringe, Germany. Congress contributions and publications took place amongst others on the subjects tonsillectomy, Zenker’s diverticulum, foreign body of the nasal cavity. He is a very experienced surgeon in the field of the rhinosurgery and reconstructive microsurgery of the middle ear.