34th Euro-Global Summit on **Cancer Therapy & Radiation Oncology**
&
6th International Conference on **Big Data Analysis and Data Mining**
&
13th International Conference on **Orthopedics, Arthroplasty and Rheumatology**
July 25-27, 2019 London, UK

Features of orbital cavernous venous malformations in contrast-enhanced ultrasound

Qing Zhou*, Qin Chen and **Hao Wu**
Sichuan Academy of Medical Sciences • Sichuan Provincial People's Hospital, China

Statement of the Problem: Orbital cavernous venous malformation (used to be known as "orbital cavernous hemangioma") is one of the common orbital occupancies, it is not a neoplasm but a venous malformation. Vision and appearance may be affected by the mass effect masses, such as blurred vision and exophthalmos may be caused by eyeball pushing. Orbital cavernous venous malformation usually present as a mass solitary, with well-defined margin, sometimes it is difficult to be identified with some tumors, such as schwannoma, solitary fibrous, and pleomorphic adenoma. The application of contrast-enhanced ultrasound imaging technology has become more and more extensive and mature recently, but there were few studies on orbital cavernous venous malformation. This study aims to help improve the diagnostic accuracy by analyzing the enhanced manifestations of orbital cavernous vascular malformation. The purpose of this study is to improve the ultrasound diagnostic accuracy of orbital cavernous vascular malformations by analyzing the enhanced features of contrast-enhanced ultrasound. Methodology & Theoretical Orientation: The contrast-enhanced ultrasound findings of orbital cavernous venous malformation cases were reviewed and analyzed to find the characteristics. Findings: All cases showed nodular contrast enhancement after injection of contrast agent, and these nodules grew larger progressively over time. Compared with surrounding tissues, the enhancement of cavernous venous malformations were usually later or synchronous. Conclusion & Significance: Contrast-enhanced ultrasound of orbital cavernous venous malformation has typical characteristics, and it is helpful for qualitative diagnosis.

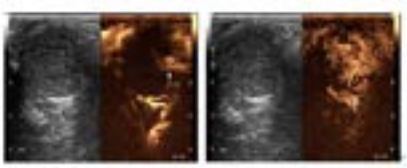

Figure 1: (A) Contrast-enhanced ultrasound image of orbital cavernous venous malformation showed nodular enhancement early (24 seconds); (B) The nodule grew larger progressively over time (88 seconds).

Recent Publications

1. Rootman J, Heran MK (2014) vascular malformations of the orbit: classification and the role of imaging in diagnosis and treatment strategies*. Ophthalmic plastic and reconstructive surgery. 30(2):91-104.
2. McCuaig CC (2017) Update on classification and diagnosis of vascular malformations. Current opinion in pediatrics. 29(4):448-454.
3. Rootman DB, Heran MK, Rootman J ,et al (2014) Cavernous venous malformations of the orbit (so-called cavernous haemangioma): a comprehensive evaluation of their clinical, imaging and histologic nature.The British journal of ophthalmology.98(7):880-888.
4. Pandit SA, Godfrey KJ, Dunbar KE, et al (2018) Low-Flow Orbital Venous Malformation Masquerading as Rhabdomyosarcoma. Ophthalmic plastic and reconstructive surgery. 34(6):e186-e189.
5. Rootman DB, Rootman J (2015) Comparative histology of orbital, hepatic and subcutaneous cavernous venous

malformations. The British journal of ophthalmology. 99(1):138-140.

Biography

Qing Zhou: Attending physician of Sichuan Provincials People's Hospital, Master of Imaging Medicine and Nuclear Medicine. She has been engaged in ultrasound and contrast-enhanced ultrasound of abdominal and superficial organs for 9 years. She has published several publications and participated in two monographs on ultrasound.

uszhouqing@hotmail.com

Notes: