

Marwan Ma'ayeh,<sup>1</sup> Nikhil Purandare,<sup>1</sup> Michelle Harrison,<sup>2</sup> Michael P. Geary<sup>1</sup> <sup>1</sup>Rotunda Hospital, Dublin 1; <sup>2</sup>Mater Misericordiae University Hospital, Dublin 7, Ireland

## Abstract

This is a case of a rapidly enlarging cutaneous pedunculated tumor on a patient's thumb during her pregnancy. This was excised and identified as a hemangioma. A literature search identified a possible hormonal factor in causing an accelerated growth of this tumor.

## **Case Report**

A 25-year-old primiparous lady presented to the antenatal clinic for a routine checkup at 36 weeks gestation. During her visit, she demonstrated a large pedunculated tumor on the dorsal surface of the interphalangeal joint of her right thumb (Figure 1).

This initially started as a small pimple which she first noticed at approximately 24 weeks gestation. She decided to burst and drain the pimple then, and again 4 weeks later, which resulted in a small bleed from the lesion on both occasions. However, the pimple continued to grow in size, and at 32 weeks gestation she presented to her General Practitioner who commenced her on oral co-amoxiclay. This had no effect on the lesion, and it continued to grow, reaching a size of 2.5×2.5×1 cm on presentation to her antenatal visit at 36 weeks gestation. It had at that stage become oozy, foulsmelling and was causing her significant local pain. At that point, we referred her to the plastic surgery team at our affiliated general hospital. The lesion was excised under local anesthetic. The lesion was a polypoid lobulated mass measuring 24×23×10 mm, with slicing showing a fatty tan surface admixed with blood. Histopathological examination of the lesion showed evidence of a hemangioma with overlying infarction, ulceration and inflammation with no atypical features (Figure 2).

She was admitted to the Rotunda Hospital a

week after with pregnancy-induced hypertension, which was controlled with labetalol 200 mg twice daily. She delivered in spontaneous labor two days post admission.

## **Discussion and Conclusions**

Hemangiomas are benign tumors of thinwalled blood vessels.<sup>1</sup> They are common in infants, and commonly present on the face and scalp, usually spontaneously regressing. In the adult they can occur anywhere on the skin.<sup>2</sup>

Research has suggested a possible role for estrogen as a mediator for vascular proliferation and hemangioma formation.<sup>3-5</sup> However, the mechanism is not fully understood. This could potentially explain the rapid growth of this lady's hemangioma during her pregnancy.

To the best of our knowledge, we could not find any other similar cases in the literature.



Figure 1. An image of the lesion at 36 weeks gestation prior to excision.



Figure 2. Image of the edge of the lesion, showing hyperkeratotic squamous epithelium with ulceration and granulation tissue overlying the left of the lesion.

Correspondence: Marwan Ma'ayeh, Rotunda Hospital, Parnell Square, Dublin 1, Ireland. Tel.: +353864125333. E-mail: maayehmarwan@gmail.com

Key words: hemangioma, estrogen, pregnancy.

Conflicts of interest: the authors report no conflicts of interest.

Received for publication: 3 May 2014. Revision received: Not required. Accepted for publication: 8 July 2014.

This work is licensed under a Creative Commons Attribution NonCommercial 3.0 License (CC BY-NC 3.0).

©Copyright M. Ma'ayeh et al., 2014 Licensee PAGEPress, Italy Clinics and Practice 2014; 4:644 doi:10.4081/cp.2014.644

## References

- Burkitt HG, Quick CRG, Reed JB. Essential surgery: problems, diagnosis and management. 4<sup>th</sup> ed. London: Churchill Livingstone; 2007. p 681.
- Underwood JCE. Tumours of blood vessels, cardiovascular system. In: Underwood JCE, ed. General and systematic pathology. 4<sup>th</sup> ed. London: Churchill Livingstone; 2004. p 296.
- 3. Sun ZY, Yang L, Yi CG, et al. Possibilities and potential roles of estrogen in the pathogenesis of proliferation hemangiomas formation. Med Hypothesis 2008; 71:286-92.
- Xiao X, Hong L, Sheng M. Promoting effects of estrogen on the proliferation of hemangioma vascular endothelial cells in vitro. J Pediatr Surg 1999;34:1603-5.
- Xiao X, Liu J, Sheng M. Synergistic effect of estrogen and VEGF on the proliferation of hemangioma vascular endothelial cells. J Pediatr Surg 2004;39:1107-10.

