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IMAGES IN SURGERY

Umbilical Keloid Formation in the Port Site Post Laparoscopy

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Abstract

A rare entity of keloid formation in the umbilical port site after undergoing laparoscopic cholecystectomy is being highlighted.

Keywords: Keloid, laparoscopy, transposition flap

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A 45-year-old man presented with an umbilical port site ovoid-shaped keloid formation after three years of laparoscopic cholecystectomy (Figure 1). The patient was advised to undergo surgery followed by radiotherapy. Being an extremely rare complication of laparoscopy with very few isolated case reports being available on this issue, most of the treatment protocols are also vague or incomplete. In view of the fear of recurrence, it is recommended for umbilical keloids to ideally undergo appropriate surgical modalities (including umbilicoplasty, if required) with

transpositional flap followed by postoperative radiotherapy (15 Gy/2 fractions/2 days), and wound/scar self-management with silicone tape and steroid plaster [1]. Other additional treatment is corticosteroid injection which has the anti-inflammatory properties and inhibit the production of fibroblasts by reducing collagen and synthesizing glycosaminoglycans into the lesion site. Even autologous platelet-rich plasma, bleomycin, or verapamil has been applied as adjuvant therapies to prevent recurrence of keloid after surgery [2,3].



Figure 1. Keloid over the umbilical port site

This condition remains important as the umbilicus is a very important place for cosmesis and all attempts should be made to give a normal look to the umbilicus after

any surgical intervention or its sequelae. A close long term follow up is recommended for all laparoscopy cases (Figure 2).



Figure 2. Keloid in the supine position

Statements and Declarations

Conflicts of interest

The authors declare that they do not have conflict of interest.

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References

1. Dohi T, Kuribayashi S, Aoki M, et al. Combination Therapy Composed of Surgery, Postoperative Radiotherapy, and Wound Self-management for Umbilical Keloids. *Plastic and Reconstructive surgery*. Global Open. 2020 Oct;8(10):e3181. DOI: 10.1097/gox.0000000000003181
2. Kwon HJ, Kim JH, Lee CR, Choi J, Moon SH, Jun YJ, Oh DY. Umbilical trocar port site keloid management using a transposition flap after laparoscopic surgery. *Arch Aesthetic Plast Surg*. 2021;27(4):125-131.
3. Bhattacharya N, Bhattacharya K, Chandran TC. Treatment of Keloids with Surgery and Immediate Postoperative Radiotherapy: Knowledge Gained Over 17 Years. *Indian J Plast Surg*. 2023 Feb 21;56(3):251-259. doi: 10.1055/s-0043-1761599.