ISSN- O: 2458 - 868X, ISSN–P: 2458 – 8687
Index Copernicus Value : 49 . 23

International Journal of Medical Science and Innovative Research (IJMSIR)
IJMSIR : A Medical Publication Hub
Available Online at: www.ijmsir.com
Volume – 3, Issue –2, April - 2018, Page No. : 32 - 34

Postinfective Contracture Umbilicus: simple technique for umbiliconeoplasty: ideas and innovations

Dr. Madhubari Vathulya, Assistant Professor, Department of Burn and Plastic Surgery, AIIMS, Rishikesh.

Correspondence Author: Dr. Madhubari Vathulya, Assistant Professor, Department of Burn and Plastic Surgery, AIIMS, Rishikesh, India.

Type of Publication: Case Report

Conflicts of Interest: Nil

Abstract

Introduction: A 23 year old lady with childhood infection of the umbilicus area? Improperly treated umbilical granuloma, presented with a scarred and contracted umbilicus for cosmetic correction. The post infected scarred umbilicus had a circumferential contracture which was released and a neo-umbilicus reconstructed. This is one of the first few reports of such a reconstruction for post infection scarring of the umbilicus

Procedure: The previous scar along with a small margin of the healthy skin was used to create the neo umbilicus. Local advancement flaps were also used to complete the procedure.

Conclusion: The case report is unique because of the peculiar site of involvement of contracture. The article also highlights the usage of native umbilicus while reconstructing the neo umbilicus using a novel technique.

Keywords: Umbilical contracture, umbiliconeoplasty

Case report

Background

Due to a childhood infection of the umbilicus, a 23 year old lady presented with a scarred and a very shallow umbilicus(fig 1). She requested for an aesthetic reconstruction of the umbilicus. The lady was of small built.

Procedure

The patient was locally infiltrated with 2 % lidocaine with adrenaline. After testing the sensitivity, the surgical planning was done. The scarred umbilicus was marked circumferentially and incised(fig 2). Five advancement flaps(fig 3) were planned from adjacent skin area. A purse string suture was taken with non absorbable poly propylene suture about 0.75 cm from the margin of the previous umbilical scar in the healthy surrounding skin region. The shape and size of the umbilicus was assessed before placing the knot on the poly propylene suture. The advancement flaps were then secured to the floor of the wound and the previously scarred umbilicus margins with sutures(fig 4, fig 5). The long term result (14 months postoperative period) is as shown (fig 6).

Results

The neoumbilicus created was deeper and aesthetically pleasing. Thus the technique enabled to use the native umbilicus to create a deeper and aesthetically appealing neo umbilicus.

Discussion

The umbilicus is basically a scar on the abdominal wall. The anatomy of a normal umbilicus is a deep scar with a superior hooding[1] and retraction at the inferior pole. The subcutaneous tissue at the level of the umbilicus is thinner[2] when compared to the rest of the abdominal wall and the skin at the junction of the umbilicus is tethered to the rectus sheath causing a shelf like effect.

The umbilicus can become a victim to a variety of pathology. Omphalitis which is a childhood infection can result in a variety of complications which also includes

loss of umbilicus. Clinical reports have also implicated Silvernitrate in causing umbilical burns when used for treating umbilical granuloma, a practice in the past. Post burn contracture of the lower abdomen may also involve the umbilicus resulting in umbilical deformities or even complete loss.

Various procedures have been described in the reconstruction of umbilicus. Use of rectangular flaps[4], c- v flaps[5],purse string suture[6], and z flaps can be found in literature. The iris technique[7] which uses four curvilinear incisions have also been elaborated. But the technique gives rise to dogears which are unsightly. Most of these flaps have been described as a complementary procedure in abdominoplasty. The article here suggests the use of a combination of purse string suture technique[7] along with advancement flaps which is novel. Also the article reports a contracture of the umbilicus in isolation , postinfective in nature which is unique in nature.

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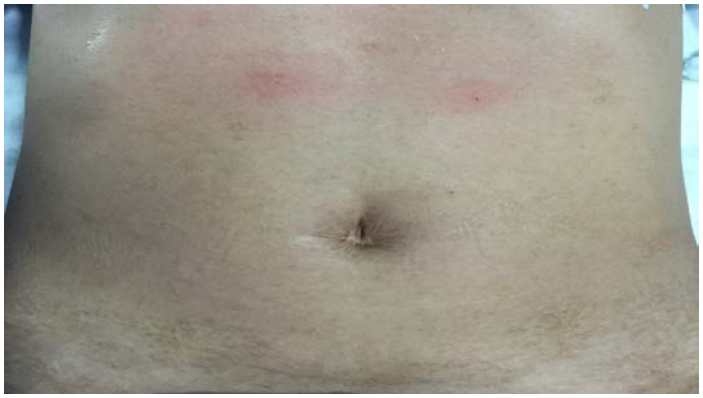

Fig 1 : preop photo

Fig 2: Preoperative planning

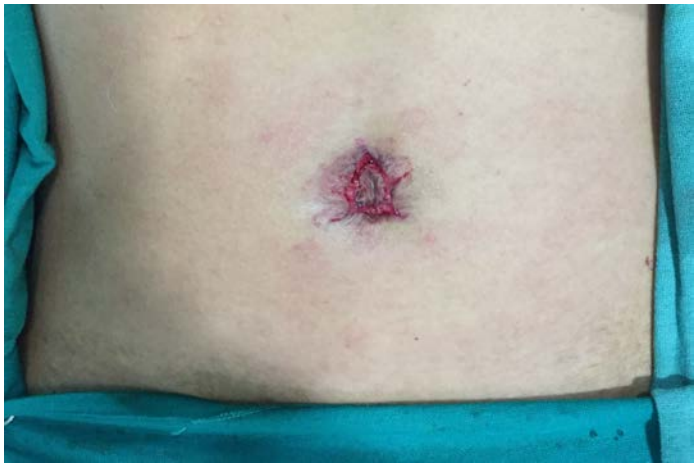

Fig 3: Incisions given

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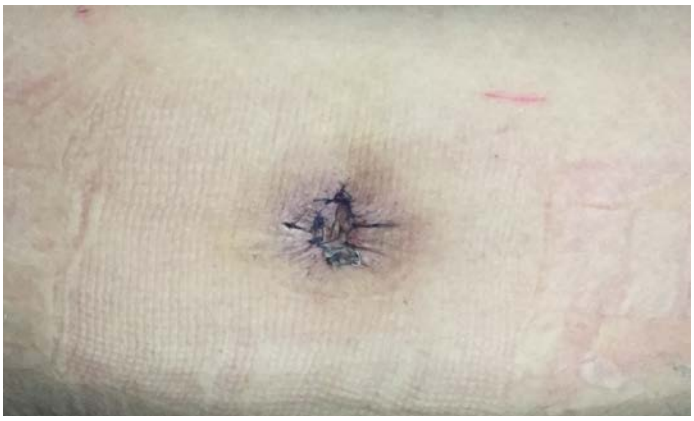

Fig 4: Immediate postoperative photo

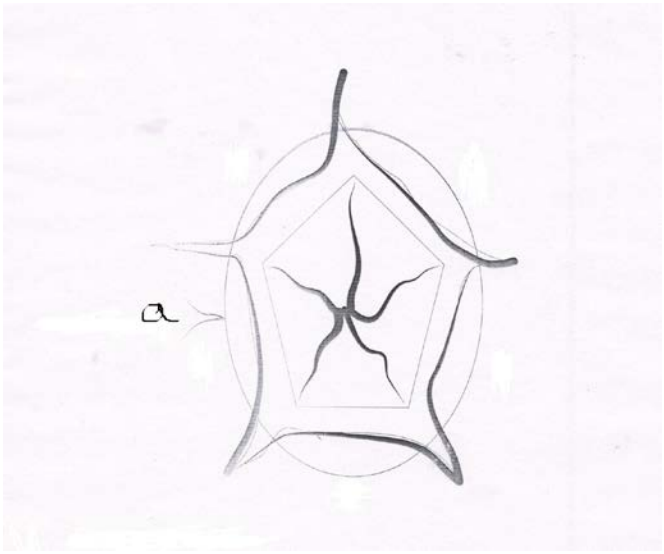

Fig 5: Diagrammatic representation of the surgical planning- purse string sutures and advancement flaps

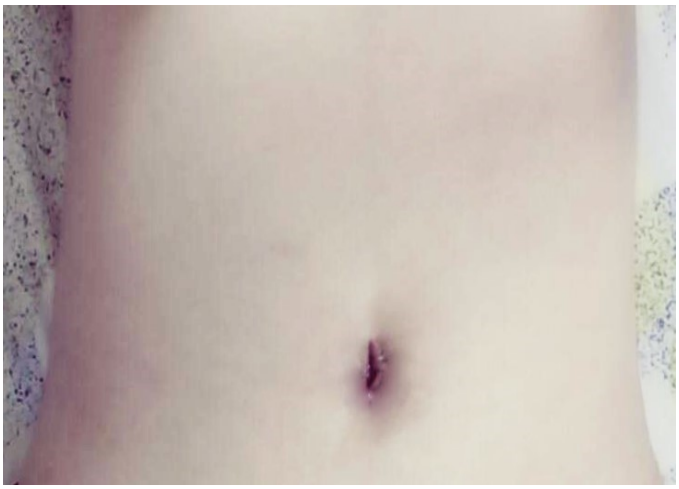

Fig 6: Final Photo in follow up

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