



Low-cost alternative approaches for pressure garments for keloid treatment

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Pressure garment therapy has been used in both the prevention and treatment of keloids and hypertrophic scars.¹ Pressure garment therapy is highly dependent on its correct use to exert its effects; it should be in close contact with the whole scar, it should be used for several hours per day, and it should promote scar blanching.² However, garments can be costly for the lower-income population or unavailable in remote areas of a few countries. Another difficulty found with pressure garment therapy is that garments sometimes do not properly adapt in close contact with the whole scar, on certain anatomical areas, such as the medial chest area, slightly depressed compared with the breasts, or the ears, where earrings might not properly fit larger keloids. We present low-cost devices brought by patients as alternative approaches to pressure garments, surprising the medical staff during a follow-up visit.

CHALLENGE 1

A female patient with a recalcitrant keloid on the breast upper inner quadrant, treated with silicone dressing and a pressure garment, came to a follow-up appointment referring a failure on her treatment, apparently because the keloid was not receiving proper pressure, because of poor contact between the keloid and the garment. She complained about pain, itching, and progressive keloid enlargement, despite the treatment attempt.

CHALLENGE 2

A teenage female patient with bilateral ear keloids was being treated with an occlusive dressing (hydrocolloid dressings) and pressure earrings (with a proposal of future steroid injections on her keloids) came to a follow-up visit referring difficulties on adapting the pressure earring to the keloid. Both patients came back, bringing solutions to improve their treatment.

SOLUTION 1

A metal coin helped to improve the contact between the occlusive dressing and the scar. The coin was cleaned and fully covered with surgical tape and was used between the occlusive dressing and a surgical bra (Fig 1). The patient used the coin during as many as 20 hours a day. She followed with an almost complete resolution of the keloid within 2.5 months.

SOLUTION 2

The patient used a wooden clothespin to replace the pressure earring, followed by keloid softening that allowed for triamcinolone injection and satisfactory outcome (Fig 2).

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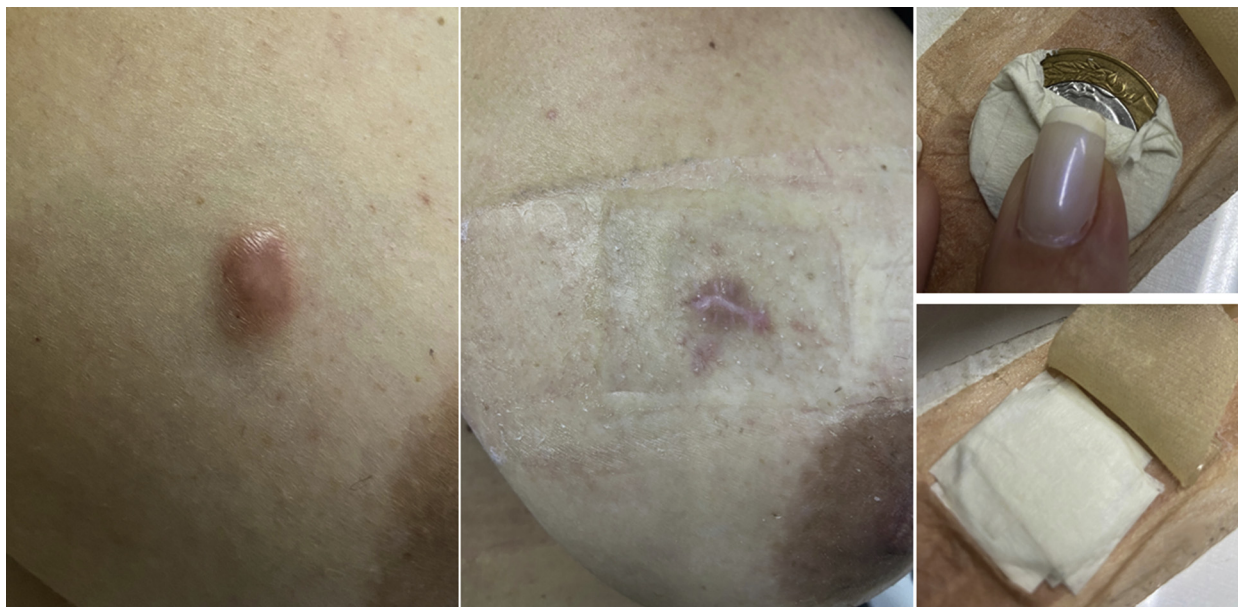


Fig 1. A metal coin was used as a part of pressure garment.



Fig 2. A wooden clothespin was adapted as a pressure garment earring.

DISCUSSION

Garment therapy is successful when pressure ranges between 15 and 40 mm Hg¹; but the clothespin spring was loose by the patient to adapt to the keloid without severe discomfort; nevertheless, we caution regarding the risk of maceration or necrosis with pressures higher than 40 mm Hg.¹ The metal coin, on the other hand, helped to exert pressure on a keloid located on a body area otherwise not compressed by the garment. We found it interesting to share two simple solutions brought by patients to overcome difficulties during challenging keloid treatments. New studies are necessary to investigate simple and safe alternative pressure garment methods, addressing their risks and benefits.

Conflicts of interest

None disclosed.

REFERENCES

1. Atiyeh BS, El Khatib AM, Dibo SA. Pressure garment therapy (PGT) of burn scars: evidence-based efficacy. *Ann Burns Fire Disasters*. 2013; 26(4):205-212.
2. Macintyre L, Baird M. Pressure garments for use in the treatment of hypertrophic scars—a review of the problems associated with their use. *Burns*. 2006;32(1):10-15.