A bone clamp

Donald H Lalonde BSc MSc MD FRCSC
Saint John Regional Hospital, Dalhousie University, Saint John, New Brunswick

DH Lalonde. A bone clamp. Can J Plast Surg 1998;6(2):105-106.

A bone clamp for use in small bone fracture reduction is described. Its tips are modelled after the towel clip. It is designed to fit in the small spaces of the hand.

Key Words: *Bone clamp, Small bone fracture reduction*

Pince à os

RÉSUMÉ : On décrit ici une pince à os à utiliser pour la réduction des fractures affectant de petits os. Ses extrémités sont modelées sur la pince à champs. Elle est conçue pour fonctionner dans les espaces restreints de la main.

Most plastic surgeons use a towel clip to hold phalangeal and metacarpal fractures in anatomical reduction while fixing fractures. It is amazing that an instrument that was designed to hold towels together still has not been outdone by specific bone reduction clamps.

Why is the towel clip the one that we keep coming back to?

First, the tips of the instrument are very sharp. Like the tips of an ice clamp that never lets go of a slippery ice block, the tips of the towel clip never let go of the bone that they are holding. Two pieces of bone can be held in reduction with a towel clip, and one knows that they will not come apart while the bone is fixed. Second, the clip end of the instrument fits in the wound better than most of the currently available bone clamps. Most available bone clamps struggle to fit around the tight squeeze of the extensor hood to get to the volar surface of a proximal phalanx. Most bone-holding forceps have a hard time getting around a long or ring metacarpal because the other metacarpals are in the way. Although the towel clip fits into these tight spaces better than the available instruments, it does not fit there comfortably for phalangeal and metacarpal bone reduction, and all surgeons occasionally struggle with the towel clip as well.

Illustrated in Figure 1 is a bone clamp that has the following advantages.

Correspondence and reprints: Dr DH Lalonde, 705 Millidge Avenue, Saint John, New Brunswick E2K 2N7. Telephone 506-648-7950, fax 506-652-8042, e-mail huzil@health.nb.ca

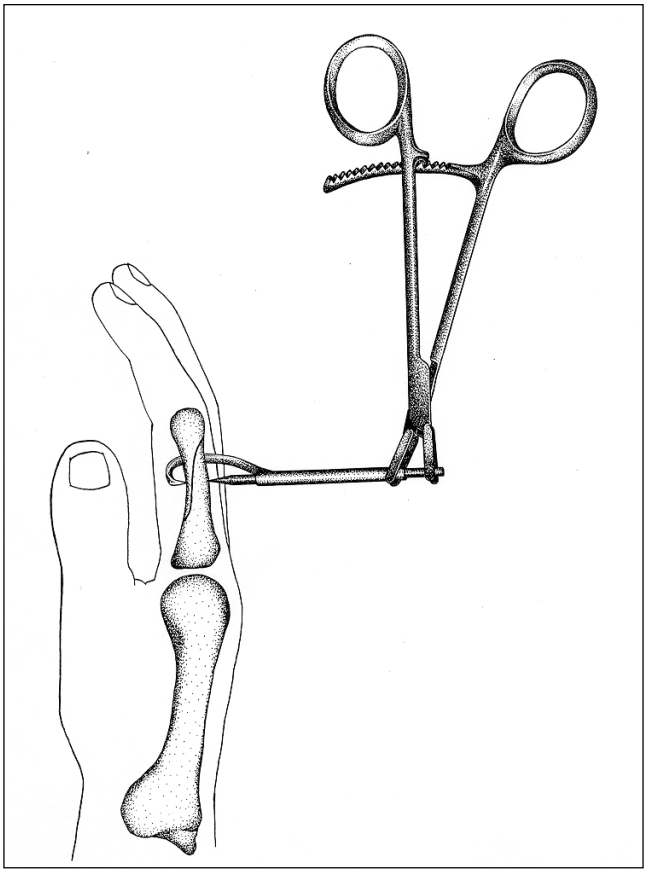

Figure 1) *Bone clamp holding the reduction of a proximal phalanx fracture in the hand*

ADVANTAGES OF THE ILLUSTRATED BONE CLAMP

1. It has the two sharp opposing tips of the towel clip.
2. It has a long enough ratchet that the instrument can be let go once the bone fragments have been reduced and held in place by the instrument.
3. Its business end is small enough to slide easily around the bones that it has to reduce without bowstringing the soft tissues around the bone.
4. It approaches the bone perpendicularly to the wound.

This bone clamp is an attempt to elevate the lowly towel clip, to allow it to perform better the task that we frequently – and perhaps unfairly – call upon it to do: anatomical bone reduction.

ACKNOWLEDGEMENTS: The author thanks Mr Ross Manning for his help with the development of this instrument.