



A tip on using the appropriate wire passer in orthopaedic surgery

Rahul KOTWAL, Rajat CHOPRA, Mukund DEGLURKAR

From Department of Orthopaedics, Princess of Wales Hospital, Bridgend, United Kingdom

The authors present a technical tip on using the appropriate wire passer while passing cerclage wires around long bones in orthopaedic surgery.

Keywords : wire passer ; cerclage wire.

INTRODUCTION

Orthopaedic surgeons frequently encounter situations where they have to pass cerclage wires around a long bone to provide mechanical stability to the bone against hoop stresses. Revision total hip replacement, periprosthetic fracture fixation and open reduction of long spiral displaced fractures of a long bone are a few examples where cerclage wires are frequently used.

TECHNICAL TIP

Two different types of wire passers are generally available. In the first type the hole at the distal end of the passer faces away (wire passer on the left in fig 1 and on the right in fig 2) from the handle of the passer. In the second type it faces towards the handle (wire passer on the right in fig 1 and on the left in fig 2). No matter whether the distal end is inserted either from above or below the bone, if the first type of passer is used it is usually extremely difficult for the surgeon or the assistant to insert the wire or cable through the distal hole as it faces away from the surface of the bone and is usually covered by the surrounding soft tissues. This neces-



Fig. 1. — View from the tip end

sitates further soft tissue dissection that may result in disruption of the blood supply to the bone. The experience may also be frustrating for the surgeon. We recommend the second type of wire passer to

- Rahul Kotwal, Staff Surgeon.
- Rajat Chopra, Senior House Officer.
- Mukund Deglurkar, Consultant Orthopaedic Surgeon.

Department of Orthopaedics, Princess of Wales Hospital, Bridgend, United Kingdom.

Correspondence : Rahul Kotwal, F-10, Staff Residence, Princess of Wales Hospital, Coity Road, Bridgend, CF31 1RQ, United Kingdom. E-mail : RahlKtwl@aol.com.

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Fig. 2. — View from the handle end

be used, in which the hole faces inside. When it is passed subperiostially around the bone the hole becomes very obvious as it is closest to the bone and the wire can be passed easily. This minimizes further soft tissue stripping and preserves the local tissue biology. We used the first type of cerclage wire passer and encountered difficulty in passing the wire on numerous occasions. We routinely use the second type of passer now and the procedure has simplified and it has also reduced the total operating time. Thus the use of appropriate instrumentation can simplify a difficult procedure.