REPLY

Sir:

Dr. Manson states that the authors were unaware that the bite force (sic) quoted in our article was not the force of a single masseter muscle. I suggest that he reread the article more carefully. Several points are made in the Discussion (p. 24) which he might wish to consider. First, there is a wide range of reported bite forces in the literature. Second, the usual force measured is unidirectional, whereas the real forces of mastication are multidirectional. Finally, the maximum force we selected was chosen "to simulate the maximal clinical stresses on fixed zygoma fractures that would be encountered in a typical Caucasian patient."

The stability testing was done over a range of stresses from 0 to 100 lb. The failure load for three-wire fixation averaged 47.4 lb (Results, p. 22). The specific contribution of the masseter to chewing forces is not necessarily one-quarter of the total forces as assumed by Dr. Manson. Since specific muscle forces are unknown, we chose to study the methods of fixation over a range of stresses from zero to the maximal expected.

We did not conclude that we had defined the forces acting on clinical zygoma fractures. Rather, we stressed the need for evaluation of the cadaver findings in vivo. Our conclusion is that masticatory forces should be considered in the choice of the method for zygoma fracture fixation. This conclusion stands irrespective of the actual forces of the masseter in vivo. Therefore, unless Drs. Manson or Ellis have specific force data for an individual masseter muscle in vivo, I see no reason to comment further on our published report.

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DEFINITIVE DIAGNOSIS OF BREAST IMPLANT RUPTURE BY ULTRASONOGRAPHY

Sir:

Ultrasound examination of augmented breasts has revealed a higher than expected incidence of asymptomatic implant rupture. One cause may be microtrauma during implant insertion. A breast augmentation retractor/protector* has been designed to facilitate the closure of tissues over any prosthesis (Fig. 1). It simplifies exposure and eliminates the risk of puncture of implants, especially when performing insertion by a periareolar submuscular approach. The angle between the blade and the retractor handle retracts the skin margin while deeper tissues are exposed for suturing. This results in increased operating speed and confidence with regard to implant protection.

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8500 Village Drive
San Antonio, Texas 78217

* Manufactured by the Pedgitt Instrument Company and the W. Lorenz Company.

AN AID FOR INTEROSSEOUS WIRING IN MANDIBULAR FRACTURES

Sir:

It was with great pleasure that I read the recent brief communication from Doctors Cho, Cherofsky, and McCoy (Plast. Reconstr. Surg. 94: 820, 1994) describing a simple technical aid for interosseous wiring.

I was disappointed to note that credit for the original description of this technique was omitted. Doctor D0nn M. Hickman and I reported on the use of a catheter guide for passing interosseous wires more than 5 years previously. Our procedure has advantages in that it allows direct visualization of the catheter tip, making insertion of the wire into the lumen facile, and by using a more flexible catheter, kinking is not a problem. Also, the entire catheter length is utilized, therefore making it unnecessary to modify the catheter or to measure the depth of the drill hole. As the authors mentioned, this technical aid makes the passage of interosseous wires much less difficult and continues to be used in our surgical practice.

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REFERENCE


REPLY

Sir:

Dr. Richard A. Beck has called attention to the fact that in our report entitled A Technique for Placement of Interosseous Wires, we failed to acknowledge the very nice paper he published along with Dr. D0nn M. Hickman in Annals of Plastic Surgery in December of 1984. It is customary these days, I believe, to blame this on the computer literary system, and I hope the previous authors will accept our apologies for the oversight.

As to the use of a catheter to facilitate passage of a wire through drill holes, I really see little significant difference between the two methods. As far as the wire fixation placement is concerned, I would comment that I agree completely that a
simple ligature is often better and more reliable than a figure of 8 wire for the reason that one loop of the figure of 8 can sometimes get caught and produce an eccentric pull, causing either a loose fixation or a partial distraction. I also agree that a second ligature should always be placed at the upper border for firm fixation.

I do find it somewhat more difficult to agree completely with the tangential placement of the drill holes limited to the outer cortex rather than a through-and-through drill hole. The latter, I believe, as demonstrated in our paper, would prove to be somewhat more rigid and, therefore, more reliable.

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KELOIDS AND HYPERTROPHIC SCARS

Sir:

I am writing in reference to the article by Rockwell, Cohen, and Ehrlich entitled Keloids and Hypertrophic Scars: A Comprehensive Review (Plast. Reconstr. Surg. 84: 827, 1989). The authors are to be complimented on an excellent overview of the basic science of keloids and hypertrophic scars. For the practicing plastic surgeon, however, the clinical differentiation between the two becomes extremely important because treatment differs considerably in that hypertrophic scars are very responsive to surgery but keloids are often made worse.

There are also a number of lesions that are hard to classify by either clinical or laboratory techniques, suggesting that hypertrophic scars and keloids are opposite ends of a spectrum of abnormal scarring. Perhaps abnormal is not an appropriate term, since, aside from the pruritus that is often associated with these lesions, these scars are perfectly functional and only represent an aesthetic deformity in our Western culture. In certain communities and social structures, i.e., Africa and New Guinea, such scars are consciously inflicted and considered aesthetic and desirable.

I would take issue, however, with the author's discussion of tension. In 1981 (Plast. Reconstr. Surg. 67: 672), my colleagues and I pointed out that tension is a directional force and implies a distractive load on the tissues. In fact, keloid is characterized by being present in areas without tension, such as earlobes and pre-sternal skin. We presented data to suggest that hypertrophic scars are primarily related to forces opposite to tension, i.e., compression and/or buckling. In fact, true hypertrophic scar contractures probably do not occur in the presence of tension. For example, scar contractures occur only on the flexor surfaces of the joints and never on the extensor surfaces. Figure 1 should be a guide for the practitioner in differentiating between hypertrophic scars and keloid.

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THE “ZIPPER” STITCH FOR INTRADERMAL CLOSURE

Sir:

The subcuticular continuous suture is a basic technique in plastic surgery. Originally described as a practical method of skin closure, an excellent approximation and a longer period of support to any wound are its main advantages. Nylon is the material of choice, and it is left in place 2 to 3 weeks before removal. For long wounds it is advocated to pass the suture through the skin every few inches to facilitate its removal.

We have read with great interest the latest communications of Mills and Garcia. Both refer to the difficulty of finding and removing a rather long subcuticular continuous nylon suture. In order to prevent suture cross the wound, wherever the loop suture is placed, Dr. Mills suggests the use of “finding sutures.” In return, Dr. Garcia emphasizes that if properly applied, it should be easy to pull them out. For long incisions, more than one suture is recommended.

To avoid these time-consuming tricks and still benefit on its behalf, we no longer use the traditional extractable nylon. Instead, the long incisions are sutured by a degradable PDS or Maxon in a subcuticular continuous fashion, 6 to 8 months degrading time adds to the scar’s stability and prevents its usual widening.

In addition, we wish to point out that the intradermal pattern of our suture is slightly modified compared with the classic one. We pass the needle horizontally through the dermis, bites being taken alternately on one side and then

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<tr>
<th>HYPERTRPHOM SCARS</th>
<th>SCARS</th>
<th>KEOID</th>
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<tr>
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<td>MAY NOT BEGIN FOR MANY MONTHS</td>
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<td>USUALLY SUBSIDE WITH TIME</td>
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<td>IN</td>
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<td>BETWEEN</td>
<td>OVERGROWS ITS BOUNDARIES</td>
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<td>SIZE COMMENSURATE WITH INJURY</td>
<td>AND HAVE</td>
<td>MINOR INJURY MAY PRODUCE LARGE</td>
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<td>CHARACTERISTICS</td>
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<td>USUALLY OCCUR ACROSS FLEXOR SURFACES (JOINTS, ABDOMEN, ETC.)</td>
<td>OF</td>
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<td>OFTEN WORSENED BY SURGERY</td>
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Fig. 1. The clinical spectrum of hypertrophic and keloid scars.