

Dear Editor,

I have recently received number 4 of our *Revista*, where I read the paper bearing the title *Absortimetric study of the incorporation of a hip prosthesis*, by De Pedro et al.

The above mentioned study is similar to that published by our own group, which we titled: *Femoral bone remodeling following total hip replacement: a densitometric study*. This study corresponded to my doctoral dissertation, which was distinguished with the SECOT Research Award that same year.

Unfortunately, the paper by Dr. De Pedro does not mention our own study among its bibliographical references. Furthermore, in my view the paper displays certain arrogance in ignoring several papers published on the subject in the recent past.

I believe that our *Revista* should monitor more closely the citations in the Bibliography section of each of the studies it publishes, specifically as regards references to studies from Spain and especially studies published in the *Revista* itself. This would show courtesy to our colleagues and would enhance the *Revista's* impact factor, if only at a Spanish level, which seems to be so much of a priority nowadays.

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Reply

Dear Editor,

I would in the first place like to acknowledge the interest shown in our study by the Gregorio Marañón Hospital team. The article *Absortimetric study of the incorporation of a hip prosthesis* is a summary of the study granted the SECOT Research Award and is based upon a line of research that has spawned funded projects, doctoral dissertations and publications. I have attentively read the paper titled *Femoral bone remodeling following total hip replacement: a densitometric study*, of whose existence I was unfortunately unaware. Otherwise, I would naturally have cited it. Perhaps one of the reasons why I did not know about that paper is the length of time elapsed (1995: 39). Indeed, in all these kinds of papers DEXA scans are used to evaluate the material.

On the other hand, I do not believe that the results obtained by both studies are comparable. One must consider that the paper by Vidal includes a population of 31 patients, it only studies the stem, it has a follow-up of 3-6 months

and used longitudinal data assessment. On the other hand, our own study includes a series of 73 patients, with longitudinal and transverse assessment of both stem and cup; our follow-up period is 5 years. Our results can be compared to those obtained by the authors mentioned among our references, i.e. Panisello, 2001, 2004 and 2006; Braun, 2003; Rahmy, 2004; Rosenthal, 2000; and Brodner, 2004. I consider that the work by Vidal et al is praiseworthy for its originality and has been included in our data base to be used as reference for future publications. I share the interest shown in our *Revista*, which has an outstanding editorial team.

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Femoral artery thrombosis during surgery for a subcapital femoral fracture

Dear Editor:

Vascular lesions caused in the course of total hip arthroplasty are rare (0.2-0.3%)¹, considering that over 100,000 hip reconstructive procedures are carried out only in the United States every year². However, these lesions lead to catastrophic consequences for survival both of the limb (15% amputation rate) and the patient (7% mortality). Most lesions occurred during revision procedures. According to Fruhwirth et al³, the main vascular complications associated with this type of surgery are lacerations, thrombosis, pseudoaneurysms and arteriovenous fistulae. We must distinguish acute complications, which occur intraoperatively or up to 2 hours postoperatively and are characterized by hemorrhage, from chronic complications with a predominance of ischemia of the involved lower limb. The later can occur up to 21 days postoperatively.

We present the case is a 74-year old woman who sustained a right hip fracture as a result of a fall⁴. Hip replacement was indicated. A purulent fluid was identified at the time of performing the capsulotomy and excising the femoral head; samples were taken for culture and the procedure was concluded. The patient was treated with antibiotics 20 days postoperatively and was referred to our institution. On admission, the patient showed no evidence of systemic inflammatory response and presented with blood

values within the normal range. The physical examination revealed the existence of distally-predominant, right lower limb pain at rest, rated at 7/10, absence of right popliteal, tibial posterior and pedal pulses, paleness, edema and coldness of the limb. The surgical wound did not show signs of infection. Admission diagnosis was acute postoperative ischemic syndrome. In the samples taken intraoperatively, no germ growth was detected, so antibiotics were discontinued. A radiological and angiographic study was carried out of the right lower limb that revealed that the patient presented with femoral artery thrombosis with a 100% obstruction. In the first 24 hours after admission, an examination of the femoral artery was performed. A thrombectomy was also carried out, which required resection of the involved segment of the artery, which was replaced by an expanded polytetrafluoroethylene prosthesis. Evolution was satisfactory and the patient was discharged by the Department of Vascular Surgery 6 days later to be subsequently treated by the Department of Trauma Surgery. Her distal pulses and capillary filling rates were within the normal range.

DISCUSSION

The different causes of vascular lesion include the use of an inappropriate surgical technique or a suboptimal surgical field. The most frequently affected vessels are the external iliac artery, the common femoral artery and the internal iliac vein². Hemorrhage from the obturator vessels, occurring as a result of the excision of the soft tissues and the bone from the bottom of the acetabulum, has a lower incidence. Penetration into the medial acetabular wall while using the reamer, or the introduction of cement into the pelvis can also result in a vascular lesion. It has been observed that cement can perforate the iliac vessels in some cases and compress them in others.

Several authors agree that the Hohmann retractor, when placed incorrectly, tends to slide or to provoke a highly aggressive retraction when the hip is exposed, causing a vascular lesion that can result in massive hemorrhage or laceration

of one of the vascular walls^{3,5}. Late vascular problems include iliac vessel thrombosis, arteriovenous fistulae and false aneurysms. The latter have been reported especially in patients with postoperative hip infections and further to the migration of threaded acetabular components.

The different authors seem to agree that, in the case of a vascular lesion, the best way of keeping the limb and the patient alive is immediate surgical repair. When damage is suspected postoperatively, an angiographic study of the anatomic area is compulsory^{2,3} to identify the lesion and rule out extrinsic compressions. Usual presentation includes edema, paleness, pain and lack of distal pulses when arterial involvement is present. In our case, a disruption of the intimal layer of the artery occurred, which caused thrombosis with complete obstruction of the femoral artery.

Despite being a rare complication, femoral artery thrombosis must be taken into account since its influence on limb and patient survival is crucial. Once the lesion occurs, detection and early treatment are fundamental for the rehabilitation of the lower limb (without amputation).

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