

# Fibula Osteotomy as a Quality-of-Life option in the Elderly



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## Short Communication

Osteoarthritis is the most common musculoskeletal disorder found in primary care [1]. It is the most common joint disease, generally developing in people older than 50 years [2]. As a chronic disease, it is characterized by pain and physical disability, with the knee being the most affected joint [1]. The lower limbs are responsible for supporting the entire weight of the body and contribute to propulsion (locomotion) and cushioning during walking, racing, jumping and all types of human physical activity [3]. Osteoarthritis of the knee or gonarthrosis is characterized by progressive degeneration and loss of articular cartilage, subchondral osteocartilaginous proliferation and articular margins, causing a narrowing of the joint space and giving rise to the formation of osteophytes [2]. According to the WHO, it affects 9.6% of men and 18% of women >60 years of age. In the US, the age- and sex-standardized annual incidence rate for gonarthrosis per 100,000 population was 240 [1].

Varus deformity is a proven poor prognostic factor in primary knee osteoarthritis and both conservative and surgical modalities are used for its treatment. With this knee deviation present, mechanical loads across the medial tibiofemoral compartment and the likelihood of involvement of the meniscus and articular cartilage are exponentially increased [4].

Proximal fibular osteotomy (PFO) is a relatively new procedure for treating medial joint OA of the knee. Compared to other options, it is a simple, easy-to-do, and less invasive procedure, which requires only a small incision, limited dissection, and no internal fixation. Evidence regarding the functional and radiological outcomes of PFO for medial joint OA of the knee is scanty. In light of this, we planned this study to describe the functional and radiological outcomes of PFO in a group of patients over a one-year period.

Taking into account the above, it was decided to carry out an investigation at the "Mártires del 9 de Abril" hospital in Sagua la Grande which took place in three stages:

In the first stage, 28 patients over 60 years of age were selected who came to the clinic with a diagnosis of painful pathological genu varus with gonarthrosis and through the interview, observation and measurement techniques, a radiological clinical assessment of the patient was obtained. The VAS visual scale was used to assess pain intensity [5]. In all cases, evaluation was carried out according to the Kellgren and Lawrence radiological scale [6] in the assessment of structural damage and clinical evolution with the results obtained according to the Lysholm scale [7].

In a second stage, the surgical intervention was carried out, which consisted of an osteotomy at a distance of 12 centimeters below the head of the fibula, a posteroexternal approach was performed between the peroneals and the soleus where 2 cms of the fibula were removed through An osteotomy performed with an electric saw was closed by planes, leaving a passive rubber drain, which was removed the following day and the patient was instructed to walk within 24 hours of the intervention.

In a third stage, the patient was periodically evaluated using the Lysholmscale [7] in the postoperative period of 1 week, a month, 3, 6 months and a year. Created and validated by this author in 1982, it is a functional evaluation scale for knee injuries, which is divided into 8 items, giving scores of the order of 0-100. Where with a score between 95-100 points an Excellent rating is obtained, between 84 and 94 points Good, between 65 and 83 points Acceptable and less than 64 points Poor or Bad. As a result of the investigation, it was possible to verify that in the 28 operated patients, clinical and radiological improvement was achieved in 100% of the patients, who decreased the angulation of the joint and improved the functionality of the lower limbs, finding three patients in the range regular, 9 in the good range and 15 in

the excellent range. These results are similar to those found by Pancorbo-Sandoval E, et al. [9] and Yang ZY, et al. [10] in patients diagnosed with Knee Osteoarthritis. It can be concluded that high fibular ostectomy is a surgical intervention that constitutes a good option for the elderly, which contributes to improving their functional capacity, achieving immediate mobilization with which they can be inserted early into society, improving their quality of life.

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