SHORT COMMUNICATION

Ostectomy of the Fibula: In Pursuit of Quality of Life

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ABSTRACT

One of the fundamental causes of the patients' visit to the Orthopedics office is joint pain. Angular deformities in children and adults are the ones that most often cause this pain. The knee is one of the most affected joints. One of the main causes of this symptomatology is osteoarthritis. The fibula ostectomy is a good opportunity for a life without pain. The most viable way is to pursue the quality of life.

Key words: Knee pain, ostectomy of the fibula, osteoarthritis

One of the fundamental causes of the patients' visit to the orthopedics office is joint pain. Angular deformities in children and adults are the ones that most often cause this pain in addition to producing functional disorders and joint degeneration.[1] The knee is one of the most affected joints due to the loading requirements of said joint, the high mobility it presents, and the loss of intrinsic stability that appears over the years.[1,2] The appearance of local pain and functional limitation is symptoms of habitual consultation.[2] One of the main causes of this symptomatology is osteoarthritis.[2,3]

Osteoarthritis is a very common condition; at present, approximately 12% of the population of the United States is affected by this disease and represents about 27 million people with an annual expenditure of 90 billion dollars.[3]

The knee joint (RA) is one of the most affected by this disease[3,4] and is often accompanied by angular deformities, especially varus. Under normal conditions, 60–80% of the weight load are distributed in the medial compartment of the knee. Hence, this compartment is considered as the site of disease start-up, and its condition is also a factor of progression.[3] The incidence of this disease is increasing due to the increase in quality and life expectancy.[5,6] On the other hand, due to the development and systematization of the diagnostic means, this disease is diagnosed at earlier ages of life.[4] According to current data in the U.S. By 2030, 20% of people over 65 can suffer from this disease, affecting approximately 70 million patients. The disability caused by this disease can be of a transitory or permanent nature, the latter being able to reach the total disability of the patient.[5] This is one of the main causes that compromise the quality of life in the elderly. At the present time, when life expectancy in large part of the countries has been increasing, working toward the quality of life must be a directive to be followed by the health system.

Several methods are used for the surgical treatment of patients with knee osteoarthritis and angular deformity: Arthroscopy, corrective osteotomies, and unicompartmental arthroplasty.[7] However, each of these procedures have specific indications, which limit their indication, for example, osteotomies among other elements need good bone quality and are performed in patients usually under 60 years, unicompartmental and total knee arthroplasties do not that they are available at all times due to their complexity and cost: Hence, the need for an alternative method for the treatment of patients with varus angular deformity, such as the partial osteotomy of the fibula (OPP),[3] it is an opportunity to improve the quality of life.

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Fibula osteotomy (OP) is a procedure performed in different situations, such as consolidation delay and pseudoarthrosis of the tibia, for autologous bone grafting, and in case of some types of osteotomies in the proximal region of the tibia.[5] The objective of using the osteotomy is to change the load axis to modify the transfer that involves the body weight from the most requested compartment to the healthy or less affected compartment, trying through it that the joint does not continue its wear and improves quality of the patient's life, and postponing the use of a prosthesis.[6]

With the osteotomy, pain relief, functional improvement, and the ability to assume more intense physical activity are sought than in cases, where a total knee arthroplasty has been chosen. Therefore, the purpose of this technique is to avoid or delay surgery with more aggressive procedures such as joint replacement. The key to success in osteotomy is the selection of the appropriate patient and the performance of a good surgical technique, taking into account that it is very difficult to predict its evolution.[6] In the diagnosis and treatment of painful genus varus, the radiographic study of the knee plays an important role since through it you can visualize the structural changes that appear on the articular surfaces of the knee and which, in turn, allows the development of classifications, which helps guide the orthopedic, in the behavior to follow with those patients who come to the office suffering from this condition.[8]

Complications after osteotomy of the fibula (OP) are minimal among those found residual weakness in case of large resections, such as that of the entire middle third and slight pain; hence, OP is a very safe surgical procedure.[3]

Around 15% of the world's population is affected by osteoarthritis; the knee joint is one of the most affected by this disease and is almost always accompanied by varus deformity. In Cuba, in the province of Villa Clara, 52% of orthopedic consultations are due to this cause, and of these, 84% occur in people over 60 years of age, causing limitation in patient ambulation and consequently the decrease in Your quality of life. Although this type of intervention has not been widespread in many countries, it is an option that should be considered. In general, the older adult who has osteoarthritis of the knee, this is accompanied by other morbidities that reduce the chances of definitive treatment to resolve the ailment, turning the fibula osteotomy into a good opportunity for a life without pain. The most viable way is to pursue quality of life.

REFERENCES

1. Centeno JL. Deformidades Angulares de las Extremidades Inferiores, Tratadas Quirúrgicamente en el Hospital Escuela Dr. Roberto Calderon en el Periodo de Enero 2012 a Diciembre 2014 (Doctoral Dissertation, Universidad Nacional Autónoma de Nicaragua, Managua); 2014. Avilable from: http://www.repositorio.unan.edu.ni/6569/1/64269.pdf. [Last accessed on 2018 Oct 08].
2. Soto LR, Pantoja RR. Plantilla con cuña de elevación lateral en el tratamiento de la gonartrosis del compartimento medial. Rev Espec Méd Quirúrgicas 2016;21:83-92. Available from: http://www.redalyc.org/pdf/473/47347633002.pdf. [Last accessed on 2018 Oct 08].
3. NguyenPham T, López AA, Medina A, Daliza F. Ostectomía parcial del peroné y artroscopia en la gonartrosis medial con deformidad en varo. Rev Arch Méd Camagüey 2018;22:244-51.
4. Marzano LP. Magnetoterapia en el Tratamiento de Gonartrosis Hospital Nacional Luis Nicasio Sáenz; 2016. Available from: http://www.repositorioacademico.usmp.edu.pe/bitstream/usmp/3255/3/wong_mlp.pdf. [Last accessed on 2018 Oct 08].
5. López AA, Lorenzo YG, Álvarez AP, Lastre GL, Lastre ML. Comportamiento de la osteoartritis de la rodilla en un grupo de pacientes venezolanos. Arch Méd Camagüey 2014;15:225-34. Available from: http://www.revistaamc.sld.cu/index.php/amc/article/download/1985/524. [Last accessed on 2018 Oct 08].
6. Sandoval EA, Mesa AC, Tirado JC, Pérez JQ, Alard RC, Delgado MM. Osteotomía del peroné, nueva técnica quirúrgica en el genu varo doloroso. Proceder y presentación de dos casos. Rev Med Electrón 2017;39:966-74. Available from: http://www.scielo.sld.cu/scielo.php?script=sci_arttext&pid=S1684-18242017000400011&lng=es. [Last accessed on 2018 Oct 08].
7. López AA, Lorenzo YC. Análisis de técnicas artroscópicas y osteotomía tibial alta en gonartrosis primaria. Med UIS 2016;29:45-51. Available from: http://www.scielo.org.co/scielo.php?script=sci_arttext&pid=S0121-03192016000100006&lng=en. [Last accessed on 2018 Nov 24].
8. Sandoval EA, Mesa AC, Valera DH, Pérez JA, Quiñones AD, Villanueva FS. Variación del espacio articular externo de la rodilla posterior a la ostectomía del peroné. Rev Med Electrón 2018;40:1446-58. Available from: http://scielo.sld.cu/scielo.php?script=sci_arttext&pid=S1684-18242018000501446&lng=es. [Last accessed on 2018 Nov 19].

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