



## METABOLIC DISORDERS OF DIABETES AND OBESITY AND OSTEO-ARTICULAR PATHOLOGY



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### Abstract

**Introduction:** Osteoarthritic manifestations (OA) of obesity are frequent among obesity and aggravate with aging, being one of the main causes of disability and impairment of the quality of life of these patients.

**Material and method:** From a historical point of view, the relationship between obesity and OA was reduced to mechanical changes due to overweight and particularly affected the knee and hip joint. The association between obesity and osteo-articular pathology, which is worth mentioning, is sufficient, but I mention: „Le tissu sous synovial est aussi le siège d’une surcharge de graisse, qui pousse, dans la cavité articulaire, des prolongements susceptibles de gêner les mouvements. [N.C Paulesco : Traité de Physiologie Médicale, capitoulul II Phénomènes de Nutrition, pag 342-356, editia a 3a, Editura Academiei Romane, 2010]”.

**Results:** With the increase in obesity prevalence, an increase in OA was observed in joints without pressure due to obesity, such as the hand or temporomandibular joint. Recent meta-analyzes bring to the fore the changes of obesity-osteoarthritis paradigms, associating metabolic disorders in obesity, leptin level and consecutive inflammation with joint disorders. Diabetes mellitus is another negative prognostic factor of OA progression. A mechanism involved seems to be the glycation of cartilage resident proteins especially those exhibiting low turnover such as type II collagen following hyperglycemia, but also the inflammatory process associated with the syndrome.

**Conclusions:** Obesity and diabetes are risk factors for femortibial gonarthrosis, osteoporosis, especially in women, arthritis, gout, lumbar and lower limb root pain. The multidisciplinary approach of these associated pathologies is important for the long-term prognosis of osteo-articular pathologies, especially as a 5-10 kg decrease in weight improves the risk and symptomatology of gonarthrosis.