Do We Need to Expend $83 Billion in Joint Prosthesis?

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Letter to Editor

According to many authors and organizations in the USA, by 2030 the total business in joint prosthesis surgery worldwide is estimated at $83 billion. This is an enormous expenditure to solve a problem taking epidemic proportions due to the presence of osteoarthritis in a population living longer more active lives.

Do we really need to spend that amount of money?

The great majority of cases of osteoarthritis in large joints like hips, knees, shoulders, etc. are the result of the lack of a radical treatment in the initial lesion of the articular cartilage that covers the bones surfaces which are as thin as our nails. During movements these lesions produce friction on rough surfaces when bones slide against each other, producing deformity and destruction of the joint due to wear and tear.

In today’s world it is unacceptable for dentists to treat tooth caries with palliative treatments until the tooth is decayed needing its removal to implant an artificial one.

The above method is being used for osteoarthritis in hips, knees and large joints. Instead of treating the lesion as soon as it is diagnosed and resurfacing it with biomaterials, cultivated cartilage, stem cells therapies, etc. the standard procedure is to wait until Total hip prosthesis implants (THP) is the solution for hips or Total knee replacements (TKR) for knees.

New ways to resurface hip joints with new biomaterials stem cells etc. is mandatory in today’s epidemic proportions that osteoarthritis is taking. We should concentrate all our resources in developing new biotherapies to help the worldwide population in order to prevent the appearance of late osteoarthritis and the need of the dreaded artificial joint prosthesis surgery.

By changing the concept of osteoarthritis and recognizing its different stages, this disease; could be eradicated in the near future, saving enormous amounts of money for national health authorities and for patients, who have to suffer pain and limitations waiting for a joint implant. We must take into consideration that populations will grow in Europe due to latest developments on our borders, with immigration and refugees who will be a burden on the budgets of National Health Services if we continue providing the old, expensive and not free from complications total joint prosthesis surgery.

With arthroscopy and X rays devices, it is feasible to diagnose lesions in the articular cartilage. The question is why new biomaterials aren’t introduced for resurfacing joints?

Already worldwide there exist several research centers working with stem cells in bio scaffolding, bio regeneration, bio tissue engineering articular cartilage and even experts like Anthony Atala interested in bio “printing” tissues and organs. In other words, we already have the scientific base for stimulating and demanding from governments health authorities, research centers and manufacturers, for economic support to set in motion the above, in order to reach as soon as possible a bio treatment for lesions in joints that can prevent the appearance of osteoarthritis, as we know today.

Is the business of joint prosthesis and the acceptance of old methods, preventing the development of new ideas and methods for developing biomaterials, to change the treatment of osteoarthritic joints?