Expounding upon risk factors

Science, Biology



Given the repercussions of developing osteoarthritis and taking into consideration the considerable number of individuals with such a condition, it is without doubt essential to gain further insights regarding the risk factors for such a manifestation of arthritis; currently, a number of risk factors have been identified, with the following being among the most commonly noted variants: obesity, genetics, bone density, and injury (Felson, 2000).

Beginning with obesity, one may logically assume that the additional weight of an individual would affect or possibly worsen such an inflammatory disease. Past studies have indeed proven that contrary to previous notions, obesity results to greater risks of developing osteoarthritis instead of the aforesaid inflammatory disease being a causative agent for obesity (Felson, 2000). Possible explanations for such have also been uncovered from past scientific endeavors.

Aside from the deteriorative effects of excessive weight to bone structure in hip and knee areas, the existence of biochemical alterations arising from obesity which further increase one's risk has also been speculated (Felson, 2000). As noted beforehand, genetic factors may also heighten the risk for the manifestation of osteoarthritis. In particular, studies have shown that the aforesaid disease may actually be regarded as quite heritable; furthermore, it has been determined that the likelihood of acquiring hip and spine related osteoarthritis may often be traced and estimated from genetic roots (Spector & MacGregor, 2004).

Even though it is understandable to inappropriately assume that inflammatory diseases are mainly related to physical or phenotypic aspects

of the human body, it is also true that most scientific findings as of late highlight the encompassing effects of genetic factors in the disease development. In fact, a myriad of chromosomes, such as 9q and 11p, have already been linked with osteoarthritis susceptibility; also, several genes have been hypothesized to serve as potential triggers for the abovementioned disease (Spector & MacGregor, 2004).

Hence, in attempting to evaluate one's chance of developing osteoarthritis, genetic considerations should undeniably be taken into consideration. Bone density is another risk factor for osteoarthritis. To further expound, studies have established that an increased amount of bone in a given area, especially in those which often provide support for weight, may also heighten one's susceptibility to osteoarthritis (Dequeker, Mokassa, & Aerssens, 1995).

The explanation to such emphasizes the connection between the functions of bones and cartilages especially in terms of absorbing or transmitting shock from movement. As bone density increases, there is a tendency for such to become excessively rigid, which would allow for a greater efficiency in allowing impact to be passed on from bones to cartilages; eventually, the cartilage are deteriorated due to such a process (Dequeker, Mokassa, & Aerssens, 1995).

Indeed, impact is an important consideration, in understanding the relation between the basic functions of the skeletal system and the development of osteoarthritis; not only does the aforesaid system provide protection but it should not be overlooked that bones and cartilages serve as the main means of structural support for the most basic actions, highlighting the frequency in

which such are utilized. Evidently, injuries are also regarded as risk factors for osteoarthritis.

As established from past scientific pursuits, the degree of risk of acquiring such an inflammatory disease due to injuries differ based on severity; however, regardless of the severity, it has been noted that men nonetheless had a higher tendency of developing osteoarthritis from such (Cooper et al., 1998). In relation to this, there have also been previous debates as to whether injuries are precursors to osteoarthritis instead of being mainly the result of the inflammatory disease.

Significant evidence highlighting the causative nature of injuries includes the finding that patients suffering from osteoarthritis, who also suffered from hip injuries, often only experienced occasional aching and soreness characteristic of the abovementioned illness years after being injured (Cooper et al. , 1998). Hence, from the points discussed above, it becomes evident that osteoarthritis is indeed an inflammatory disease of complicated nature.

References

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