**Original Research Article**

# Relationship between Cardiovascular Diseases and Knee Osteoarthritis in Patients Referred to Orthopedic Hospitals in Tabriz in 2020

**Mohammadreza Moharrami [1]\*, Parham Maroufi [2]**

[1]Assistant Professor of Orthopaedics, Department of Orthopedics, School of Medicine, Rahat Breath and Sleep Research Center, Tabriz University of Medical Sciences, Tabriz, Iran

[2]Assistant Professor of Orthopaedics, Department of Orthopedics, School of Medicine, Shohada Medical Research & Training Hospital, Tabriz University of Medical Sciences, Tabriz, Iran

**ABSTRACT**

Suspicion of a link between cardiovascular diseases (CVDs) and osteoarthritis (OA) is increased by the presence of the protein Z39Ig both in patients with OA and in those with CVDs. Consequently, this research intended to determine the relationship between CVDs and development of knee OA in patients referred to the orthopedic hospitals in Tabriz County during 2020. This descriptive cross-sectional study was conducted on 200 participants (n=100 in both the control and the case groups) referred to the orthopedic clinics of Tabriz University of Medical Sciences. They were compared with respect to the cardiovascular disease (CVD) risk factors and results of the biochemical tests. The independent t-test and logistic regression analysis were used to compare the data. Female gender, diabetes, high blood pressure, metabolic syndrome (MS), waist circumference (WC) and smoking caused 2.14-, 2.01-,2.59-, 2.03-, 2.51- and 1.36-fold increases in the risk of OA development, respectively. Female gender, high cholesterol level, larger WC and MS were among the factors related to OA development and exhibited higher frequencies in patients with OA compared to those without it.

**Keywords:** Osteoarthritis, Cardiovascular Diseases, Risk Factor, Waist Circumference

**\*Corresponding Author: Orcid:0000-0001-8662-8816**
**E-mail: ostad_tbzmed@yahoo.com**