## MALIGNANT FIBROUS HISTIOCYTOMA ASSOCIATED WITH COXOFEMORAL ARTHRODESIS

## Daniel G Olmedo<sup>1</sup>, Ernesto Michanié<sup>2</sup>, Liliana Olvi<sup>3</sup>, Eduardo Santini-Araujo<sup>3,4</sup>, and Rómulo L Cabrini<sup>4</sup>

<sup>1</sup>Department of Oral Pathology, School of Dentistry, University of Buenos Aires and Member of National Research Council (CONICET), Buenos Aires; <sup>2</sup>Chairman, Department of Orthopedics, M. Curie Hospital, Buenos Aires; <sup>3</sup>Laboratory of Orthopedic Pathology, Buenos Aires; <sup>4</sup>Department of Oral Pathology, School of Dentistry, University of Buenos Aires and Department of Radiobiology, National Atomic Energy Commission, Buenos Aires, Argentina

The discovery of biomaterials led to their use in the manufacture of implants for biomedical applications. *In vivo*, no metal or alloy is completely inert. The potential toxicity of some of the metals most frequently employed in the manufacture of orthopedic implants has been reported. Their carcinogenic potential has been evaluated in experimental animal models. However, few reports have discussed the potential development of malignant tumors associated with prosthetic structures in humans. The present study documents a case of intraosseous sarcoma that developed in the vicinity of a metallic prosthesis 43 months after a coxofemoral arthrodesis with metallic pins and screws. With this report the authors seek to contribute to the understanding of the potential toxicity and risks of using metallic implants. Since metallic implants employed in the rehabilitation of osteo-muscular-articular disorders usually remain in the organism for long periods of time, the need to monitor the metallic structures and the adjacent tissues is extremely relevant.

Key words: coxofemoral arthrodesis, malignant fibrous histiocytoma, metallic implants.

Acknowledgments: The authors gratefully acknowledge the expert assistance of Dr Marina Rosembush of the National Atomic Energy Commission, who performed the EDX technique. This study was supported by the National Agency for the Promotion of Science and Technology (grant BID 1728/OC-AR - PICT 33493), Argentina.

*Correspondence to:* Dr Daniel G. Olmedo, Cátedra de Anatomía Patológica, Facultad de Odontología, Universidad de Buenos Aires, MT de Alvear 2142, 2° A, C1122 AAH, Buenos Aires, Argentina. Tel +54-11-49641273; fax +54-11-45083958; e-mail dolmedo@argentina.com