ORAL PRESENTATION ABSTRACT

3.3. "E12 Sheet Plastination Technique. Protocols and Applications. Bibliographical Review with Systematic Search. Preliminary Communication". "Técnica de Plastinación de Cortes E12. Protocolos y Aplicaciones. Revisión Bibliográfica con Búsqueda Sistemática. Comunicación Preliminar".

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Introduction: Plastination is an anatomical technique that consists of replacing the liquids and fat from fixed or fresh specimens, with reactive polymers by vacuum forced impregnation. Plastination was created by Prof. Gunther von Hagens, in Heidelberg, Germany, in 1977. E12 sheet plastination is based on epoxy polymers, and allows the production of transparent tissue sections, which can be thin (2-4 mm) and ultra-thin (less than 2 mm), without altering the original topography of the anatomical structures. The aim of this work was to review E12 sheet plastination technique, identifying the methods implemented by different authors to obtain plastinated sheets and determining their applications according to the tissue under study. **Material and method:** A literature search was carried out in Pubmed, Scopus and ScIELO, using the search algorithm: (epoxy resin OR E12) AND (Plastination). Articles related to E12 sheet plastination technique, published from 2017, were included, continuing the first review carried out by Ottone et al. (2018) that included articles from the beginning of plastination until the year 2017. It was not filtered by language. **Results:** After the search, 135 records were found (Pubmed, n: 69; Scopus, n: 64; Scielo, n: 2), Finally, 19 articles were included in this review (after duplicates and articles were excluded unrelated to the topic). The articles included were analyzed and variations were identified in the protocols applied with respect to the original technique, either in the resins, times or thickness of the slices obtained, as well as the application of the technique in different anatomical regions, with different objectives. **Discussion:** The E12 sheet plastination technique was patented in 1982 by Prof. Gunther von Hagens and is considered the standard method. Over the years, different researchers have applied modifications in the protocols of this method, in order to obtain more efficient and effective results. In turn, other authors have used alternative plastination materials to original E12 resin. **Conclusions:** E12 sheet plastination is an anatomical technique that allows anatomical structures to be preserved in situ, without modification of their arrangement, permiting detailed observation of its macroscopic and microscopic morphological characteristics thanks to the transparency it gives to the tissues, without the need for decalcification. Due to these characteristics, the E12 section plastination technique is indicated for anatomical and morphological research.

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