

Shellac: A Non-Toxic Preservative for Human Embalming Techniques

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Abstract: It is extremely important to fix and preserve cadavers adequately not only for the sake of anatomical studies but also for the financial justification. However, the difficulties in handling and the problems of preservation of human anatomical preparations and the potential health and safety problems for staff and students in gross anatomy laboratories and the need to comply with increasingly restrictive exposure limits to components of embalming chemicals have led the research team to fashion a new embalming technique. The study was performed at the Department of Anatomy, Faculty of Medicine, King Abdulaziz University, Jeddah, Saudi Arabia through the years 2008-2010. About 10 cadavers were selected from the fridges of the dissection lab of the Anatomy Department; 5 for long-term preservation and five for softening purposes. The procedure involved rinsing the cadavers with the Shellac embalming solution in a pressurized tank, under a pressure of 1.5 bars for 3 days. In this study, it is revealed that there is a remarkably high embalming capacity of Shellac as shown from the well preserved dissected parts and organs in the softened cadavers. The remaining cadavers, intended for long-term preservation, mummified using Shellac could be retained in normal room conditions; whereby it was easy to soften again by simply replacing it inside the softening tank for 2-3 days. The significant use of Shellac throughout the embalming technique, as a less hazardous and financially more viable material, was discussed juxtapose more conventional and known toxic materials used in standard embalming techniques