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Modification in plastering technique - An old sword

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dvent of Plaster of Paris (POP) many years ago is a novel invention for the field of orthopedics. There are varied and multiple ${f A}$ usage of plaster of Paris in day to day orthopedics practice. The first recorded use of plaster in a medical situation was in the 9th century A.D. in the Arabic world. More modern use is credited to Antonius Mathyson, a Dutch medical officer, who initiated the use of plaster impregnated bandages for the treatment of musculoskeletal injuries in 1852. Classical technique of applying plaster splints for musculoskeletal injuries includes application of cotton roll of adequate thickness followed by putting wet POP splint made of adequate layers & thickness for proper strength and wrapped over by bandage to keep it in position after proper molding. But in this technique we all are facing some problems i.e. drainage of more amount of POP material in dip water, spilling of wet POP material all over the floor, frequent reapplication of POP splints in same patient due to breakage and loosening of splint, difficulty in on and off application of splint for intermittent exercises etc. These problems can be avoided by using readymade POP splints which are easily available in medical store but are very costly. Because of these problems we made some efficient and cheap modifications in this classical technique which includes : a) wrapping the POP splint of adequate thickness with two layers of starch bandage with 50% overlapping before wetting, b) addition of a layer of foam sponge before application of second layer of bandage around dry POP splint when required mostly in pediatric population as their skin is more prone to burns due to exothermic reaction after wetting POP and c) addition of a separate layer of cotton roll of same length and width as of POP splint on both surfaces along the axis of POP splint for easy on and off application in case intermittent exercises required. This slight and easy modification in POP splint application has various advantages mentioned below which we found in our day to day practice: Easy to apply, less drainage of POP material from splints while wetting in dip water, less spillage of POP material on floor as starch bandage holds the POP material in splints well, finally molded splint with smooth edges, easy to remove and reapply when POP splints are required on and off for intermittent mobilization to prevent stiffness and found to have very good strength compared to classical technique of POP splint application in terms of breakage point at the last follow up. This technique is very beneficial for developing countries as this is very easy to make and apply and cheap as well as comfortable for the patients.

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