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TO DETERMINE DRY OR WET CRAPE BANDAGES ADVANTAGES IN ORTHOPEDIC WARD FOR APPLYING BACKSLABS

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Abstract:

Purpose: *To determine if there is any change in the length of the crepe bandage and when the wet cotton bandage is wet and left to dry again. This will simulate the application of a wet bandage to the Paris plasterboard (POP) and then to the crockery.*

Place of Work: *Orthopedic Surgery Unit I Sheikh Zayed Hospital Rahim Yar Khan.*

Study plan: *Experimental study*

Materials and methods: *50 cm crepe strips and simple cotton bandages were taken. We made them moist and we measured them, then dried them up and measured them again.*

Findings: *Both the bandage and the simple cotton bandage were wetted and then dried at a total of about 6%. For this reason, this phenomenon has the potential to cause compression effects on the limbs and to raise the intra-compartmental pressure in the case of POP plaque application.*

Conclusion: *As a result of the need to apply POP support plates to bandages such as creeper or cotton in dry back.*

Key words: *Crepe bandage, POP back plate, simple cotton bandage.*

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INTRODUCTION:

Crape bandages and simple cotton bandages are routinely used in the practice of plasters in the orthopedic practice of Paris (POP) supplements. It is believed that the fractures are undergoing extensions without causing compression effects on the limb structures, which they allow for swelling after an injury. In addition, back slabs are used on the supine and soft tissues after surgical treatment of upper and lower extremity injuries. Applying a wet bandage prevents the POP from adjusting too quickly and allows time to reach the position and shape of the limb. This technique is taught in many orthopedic textbooks. However, we assume that you think that a wet bandage is dry and may cause a constriction. This can lead to higher pressures in the splint and can lead to compartment syndrome.

MATERIALS AND METHODS:

In this study, two types of bandages were used: a 6-inch-wide crepe bandage and a 6-inch-wide bandage. Each bandage was cut into strips of 50 cm and marked with a permanent marker. The bandage strips were immersed in a container filled with tap water. They were slowly bored and lying on a bench. Bandages are measured in length. The strips were left to dry. After drying, the length was measured again.

RESULTS:

Both crepe and cotton bandages were shrunk in wet condition, according to the original dry condition. The crepe bandage stretched 48 cm from the original length of 50 cm. This contraction was 4% of the original length. The cotton bandage stretched from 50 cm to 47.5 cm in original length, and the contraction constituted 5% of the original length. Both bandages shrank after drying. Bandage bandage was 48 cm to 47 cm (2.08% additional contraction) and cotton bandage was 47.5 cm to 47 cm (1.05% additional contraction). The results of the individual strips are described in Table 1.

Table 1: Changes in length of crepe and cotton bandages when wet and re-dried.

	Dry length (cm)	Wet length (cm)	Percentage change from original in wet state	Re-dry length (cm)	Percentage change from wet
Crepe	50	48	4%	47	2.08%
Cotton	50	47.5	5%	47	1.05%

The change in the length of the cotton and crepe dressings can easily be seen in Figures 1 and 2.

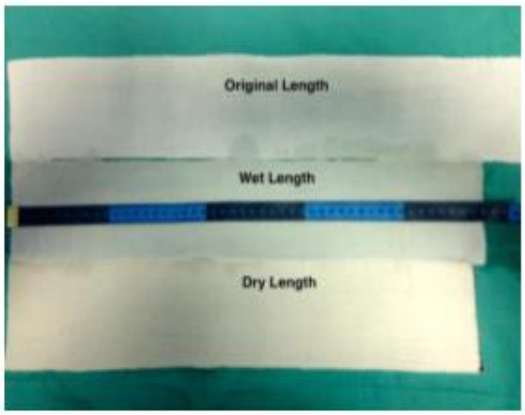

Figure 1: Change of length in crepe bandage

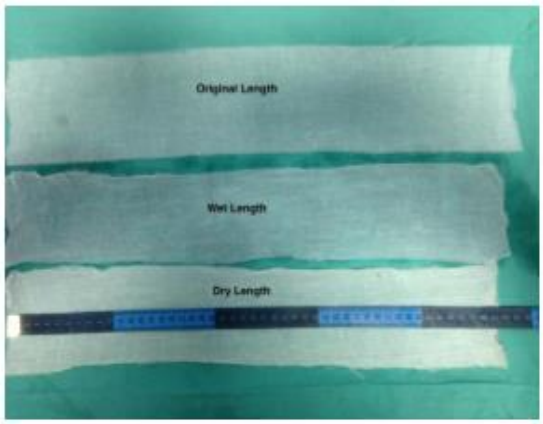

Figure 2: Change of length in cotton bandage

A shrink is caused by packaging a reduction of around 4%. the volume can be reduced by 28%. The reason for this is that the volume of a cylinder or a point is proportional to the radius of the circle. Previous studies have shown that the volume of an extremity is linear with a pressure of up to about 40 mm Hg. for this reason, a 28% reduction in volume can translate into a proportional increase in pressure. In a similar study by Santosh Baliga, wet and sticky bandages shrunk in wet state (16% of the original size is median). Both bandages shrugged off to a median of 7% of the original size. For this reason, it can be said that for any bandage, it is more likely to cause the problem of shrinkage of the wet and dry wet floor. Those who think that the wet bandage increases the strength when applying a wet bandage should keep this in mind. The limit of this study is the direct measurement of the pressure under the posterior slab and the compressed air pressure.

CONCLUSION:

This experimental study shows that cotton and crepe bandages will shrink when wet. They are even smaller when allowed to dry. This phenomenon has a potentially significant increase in potency applied to the limb with a posterior slab population applied with wet bandages. We believe that the application of wet bandages may be one of the reasons why some slabs may need to be released. For this reason, it is advisable to apply bandages only in dry state. Despite partial wetting due to the wet POP plate, it will still be a better option than completely wet bandages.

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