

Opsite Strapping for the Treatment of Infantile Umbilical Hernia

Pages with reference to book, From 306 To 308

Asghar Channa, Nizam ul Hasan (Department of Paediatric Surgery, National Institute of Child Health Jinnah Postgraduate Medical Centre, Karachi.)

Abstract

A study was conducted to evaluate the efficacy of "Opsite" strapping for the Umbilical Hernia. Opsite is a low allergy adhesive membrane, used during Surgical Operations. It also has advantages over commonly used sticking plaster, for being resistant to water and urine and also allows inspection of hernia. "Opsite" strapping was found to be effective in keeping the hernia reduced till the ring closed in 70% children below 2 years of age with umbilical ring defect of 0.5 cm and above. In 11% there were skin complications of strapping. In some patient who developed minor skin abrasions, strapping was continued till the closure of ring. The abrasions healed as the strapping continued (JPMA 34: 306, 1984).

Introduction

Strapping of infantile umbilical hernia with various sticking materials has been in vogue for a long time. Most of the material used caused irritation and ulceration of the skin due to allergy. They get loose if soaked with water or urine. Due to opaque nature it is necessary to remove the material to observe the progress of hernia. These materials also do not mould to the body configurations. Opsite which is a low allergy adhesive membrane does not have above disadvantages. Opsite is commonly used as a sterile drape during operations, but has not been previously used for strapping of umbilical hernia. A prospective study was designed to assess the feasibility for using opsite strapping for umbilical hernia.

Material and Methods

All cases of umbilical hernia seen as outpatient or admitted as in-patient at the Department of Paediatric Surgery, National Institute of Child Health, Jinnah Postgraduate Medical Centre, Karachi were recorded on a specially designed proforma. Only cases upto the age of two years and having umbilical ring defect of 0.5 cm and above were included in the study for opsite strapping. From February 1983 to January 1984, 104 cases were selected "Opsite wound dressing" 10 cm X 14 cm was used. The material after being taken out from sterile wrapper was divided in the middle so as to make two strips of 5 cm X 10 cm. The skin around the umbilicus was cleaned with surgical spirit and allowed to dry. Two strips were then applied vertically on either side of the hernia protrusion, removing the paper cover in the process (Fig-1)



Fig.1 Application of vertical opposite strips.

when the vertical strips were firmly adherent the hernia was reduced and fold of skin from two sides was brought together over it and another 5 cm strip was applied across the fold on to the vertical strips slowly, removing the paper cover (Fig-2).

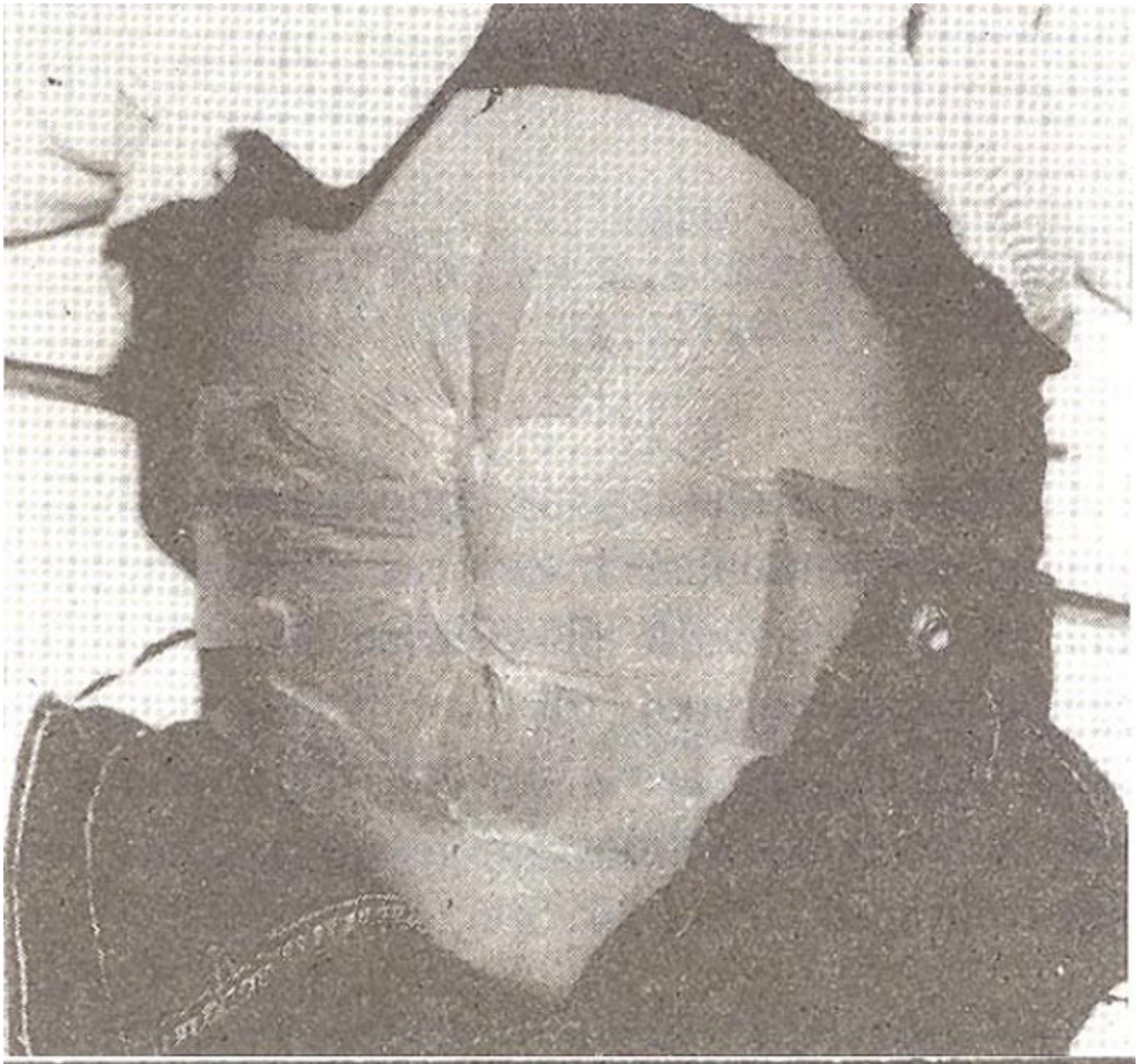


Fig. 2. Reduction of hernia and application of horizontal strip .

Any excess of opsite beyond the vertical strip was removed.

Patients were asked to report at weekly interval or sooner if the strapping got loose. They were informed that the patient can be bathed as desired, but application of oil was not allowed, as it would loosen the strapping. The strapping once applied was changed only when loose or the colour or the opsite film changed to brown (usually in three weeks).

Results

Of 107 patients 34 were excluded because they were either admitted as an emergency or routinely for surgical treatment and because their hernial orifice was less than 0.5 cm and therefore spontaneous closure without complication was expected. A total of 69 patients were left in whom opsite was used.

Thirty three of these did not return for regular follow up and therefore dropped from the study. Response to opsite strapping in 36 patients is presented here.

Table I (A)
Umbilical Hernia
Opsite Treated Cases.

| | |
|-------------------------------------------------|----|
| Included in Trial | 36 |
| Male | 21 |
| Female | 15 |
| Age: 15 Days to 2 Years | |
| Size of Hernia: 0.5 cm to 15 cm (Circumference) | |

Table I (A)
Umbilical Hernia
Opsite Treated Cases.
(Age and Sex)

| Months (Age) | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 1Y | 2Y |
|---------------|-----|-----|-----|-----|-----|-----|-----|-----|---|----|----|----|-----|
| No. of Cases: | 14 | 7 | 3 | 2 | 2 | 3 | 1 | 1 | - | 1 | - | 1 | 1 |
| | M F | M F | M F | M F | M F | M F | F | F | F | - | F | - | F F |
| | 8 6 | 4 3 | 2 1 | 2 2 | 2 2 | 3 1 | 1 1 | 1 1 | - | 1 | - | 1 | 1 1 |

Table-i (a and b) shows the age and, sex distribution. The ages ranged from 15 days to 2 years. The circumference of hernia varied from 0.5 cm to 15 cm.

Table II Umbilical Hernia Opsite Treated Cases.

| | |
|--------------------------------------------------------|----|
| Cured | 13 |
| Cure Expected | 11 |
| Failure | 12 |
| Skin Complications in Cured and Cure Expected Cases | 11 |
| Skin Complications in Failure Cases | 6 |

Table-II shows the results of opsite strapping. In 69% of patients hernial orifice closed or considerably reduced in size. In 12 patients opsite strapping was ineffective. In six cases strapping was removed due to severe skin rashes and in the remaining six it got loose and was taken off. In 11 patients who were successfully treated with opsite, minor skin abrasions occurred along the outer margins of opsite, but its applications continued until hernia was cured. A complication rate of 3.6% was recorded in the successfully treated cases.

Discussion

Hasan and Sultana¹ observed serious complications of umbilical hernia and recommended use of strapping to prevent these complications. Sticking plaster is commonly used for strapping. It gets loose when wet and also causes skin ulceration. Being opaque progress of hernia can only be seen on removing the strapping. There is a case report where strangulation of hernia occurred under the sticking plaster strapping without being noticed²

Opsite provides a good alternative to sticking plaster for the strapping of umbilical hernia. Opsite has been found to be successful in the control and cure of infantile umbilical hernia in nearly 70% of patients. Increase in cure rate and drop in the skin complication is expected with more experience.

Acknowledgement

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References

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2. Lord, G.A. Infantile umbilical hernia, to strap or not to strap. Med. J. Aust., 1971; 83:85.