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Mathieu's Hypospadias Repair: Short Hospital Stay versus Day-Care

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Abstract

Objective: This study compared the outcome of day care and in-patient managements of patients following Mathieu's repair of hypospadias.

Methods: This was a retrospective study of Mathieu's repair of hypospadias. Outcome measures were catheter and dressing related problems/complications.

Results: Sixty five patients were included in the study; 43(66.2%) were managed in-hospital for the first 48 hours (Group A), while 22(33.8%) were managed as day-care cases (Group B). Complication rate was 6(14.0%) in group A and 3(13.6%) in group B, with fistula rate of 2(4.7% and 1(4.5%), respectively.

Conclusion: Day care Mathieu's repair of hypospadias does not lead to increased postoperative complications.

Key Words: Mathieu's repair, hospital stay, day-care complications

Introduction

Majority (50-70%) of distal (anterior) hypospadias can be repaired by the Mathieu's method[1,2]. Early postoperative management of hypospadias is as crucial as the surgery itself. The proper post operative management after Mathieu's repair of hypospadias in children continues to be a source of debate. Some believe that dressing is essential to stabilize the wound, prevent bleeding, reduce swelling and prevent interference and contamination[3-6]. Others claim that there is no benefit in dressing these wounds[4,5]. Similar arguments exist with regards to urinary diversion[6,7]. The policy in our centre before now was to routinely catheterize, dress and admit these patients for the first 48 hours after surgery. However, if there were no concerns and parents were motivated, they were discharged home within 24 hours and returned at 48 hours for removal of catheter and dressing.

The aim of the study was to compare the management difficulties and complications in patients who had day-care Mathieu's repair with those who spent the first 48 hours in the hospital after the repair.

Patients and Methods

This was a retrospective review of 65 patients who had Mathieu's repair of hypospadias at Norfolk and Norwich University Hospital UK between February 1995 and January 2006. Data obtained from the patients' records and analysed included the type of hypospadias, type of repair, age and date of surgery, duration of post operative hospital stay, type of dressing used, problems related to catheter or dressing, and findings at follow-up clinics.

Results

A total of 97 patients had hypospadias surgery; of these 65(67.0%) had Mathieu's repair and were analysed. Twenty four (36.9%) of the 65 patients were aged between 6 and 12 months, while 16(24.6%) were aged 19-24 months (Table 1). Thirty eight (58.5%) patients had coronal hypospadias, 17(26.1%) had subcoronal, and 10(15.4%) glanular hypospadias. Twenty-four (36.9%) patients had repair at the age of one year while 5 (7.7%) after the age of 3 years (median age: 13 months). Fourteen (21.5%) patients had silastic foam dressing and 51(78.5%) had

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Allevyn® dressing.

Patients were classified into two groups (Table 2). Group A comprised 43 (66.2%) patients who were managed in-hospital for 48 hours, and group B consisted of 22(33.8%) managed as day-cases. The complications in Group A included blocked catheters in 2 patients, one of which required general anaesthetic to re-insert. The dressing either dislodged or got soiled and needed changing in 4 patients (Table 3). One patient each developed urethro-cutaneous fistula and reactionary haemorrhage. The overall incidences of problems and complications in this group were 7(16.3%), and 6(14.0%), respectively.

In Group B, there was need to change dressing because of soiling in 2 patients, with an overall problem incidence of 2 (9.0%). One (4.5%) patient developed urethro-cutaneous fistula and another had a stitch granuloma. The overall incidence of complications was 3(13.6%) in this group (Table 3).

Silastic foam was used as dressing until 1998 when Allevyn® (Smith + Nephew) became available to the hospital and was adopted in most of the subsequent dressings (Fig 1). The incidence of dressing-related problems and complications was 28.6% in silastic foam dressing and 27.5% in Allevyn® dressing (Table 4).

No patient had flap breakdown, meatal retraction, meatal stenosis, or urethral stricture after 31/2 years follow-up period.

Discussion

In this study, there was no increase in the incidence of complications or problems related to dressing or catheter in patients who were discharged home within 24 hours after repair. The fistula rates were similar (4.7% in A, 4.5% in B) in both groups. This implies that the occurrence of complications/problems does not depend on the length of hospital stay after the repair.

Based on our experience, we recommend that in the early postoperative management of patients following a Mathieu's repair, attention should be directed at the control of pain, care of the urinary catheter and wound dressing. This is particularly important to reduce the stress to patient and to improve outcome. In this regard the day-care patients may receive a better attention to their dressing and catheter if the parents are well informed on postoperative care. This is relevant in our setting where both medical and surgical patients share a common ward. Under such a situation there is a potential sub-optimal care for patients who stayed in, especially when the nurse has limited experienced with the management of such patients, or there are too many patients to attend to. Plans are underway to extend the role of our outreach nurse specialists to visit these patients at home to remove the dressing and catheter after 48 hours because the Allevyn® dressing is user-friendly that requires no sedation for its removal.

Wheeler et al[7] reported a high incidence of immediate dysuria and subsequent fistula rate following a day case Mathieu's repair if there is no

La réparation de l'hypospadias par la méthode de Mathieu: courte hospitalisation contre l'accueil de jour

Résumé

Objectif: Cette étude a comparé le résultat de l'accueil de jour et de l'hospitalisation dans la gestion des malades opérés pour l'hypospadias par la méthode de Mathieu. ***Méthode:*** Il s'agit d'une étude rétrospective du traitement de l'hypospadias par la méthode de Mathieu. Les résultats étaient des problèmes liés au cathéter et au pansement. ***Résultats:*** Soixante-cinq malades ont été inclus dans l'étude; 43 (66,2%) ont été soignés à l'hôpital pendant les 48 premières heures (Groupe A), alors que 22 (33,8%) ont été soignés à la journée (Groupe B). Le taux de complication était de 6 (14,0%) dans le groupe A et de 3 (13,6%) dans le groupe B. Le taux de la fistule était de 2 (4,7%) et 1 (4,5%), pour les deux groupes respectivement. ***Conclusion:*** La réparation de l'hypospadias par la méthode de Mathieu et à la journée ne comporte pas une augmentation des complications postopératoires. ***Mots-clés:*** La réparation par la méthode de Mathieu, séjour à l'hôpital, complications de la gestion à la journée.

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