



The Results after Reconstruction of Penile Paraffinoma

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Abstract

Background: Penile paraffinoma is penile girth augmentation by dermal grafts or by fat injections. Paraffin injection is one of the options that are used to enlarge men penis with consequences in infection and painful erection. The number of patients seeking penile contour improvement is constantly increasing. Nowadays treatment and after treatment are still lack of data. Patients who suffer from paraffinoma must understand and receive proper treatment.

Objective: To understand and to collect data for the purpose of knowledge and patients informations.

Materials and Methods: This case reviewed study was a retrospective review which included 58 patients who had paraffinoma performed and repaired. The primary outcome was postoperative recovery time of sexual function. Where as the secondary outcome was postoperative complication of one stage repaired compared with two stages repaired. The tertiary outcome was duration of hospital stay.

Results: There were 6 out of 58 patients who were dropped out from the study because of lost follow up. Twenty four patients performed two stages repaired and the other 28 patients performed one stage repaired. Common finding symptoms were pain in 25 (48%) patients and deformity in 24 (46%) patients. 70% of them could preserve sexual function. One stage repairment incurred shorter time than two stages repaired. Postoperative complications were evaluated with presenting symptoms such as postoperative pain, deformity, wound dehiscence, wound infection and re-operation. But there were no statistical significant postoperative complication between both techniques.

Conclusion: Most of the men are 30 to 50 years old and have history of alcohol drinking. One stage repairment incurred shorter time than two stages repaired. There were no statistically significant differences in postoperative complications between both techniques. Patients who performed one stage repairment could resume full sexual function within 4 months and 9 months for two stages repairment.

Keywords: penile paraffinoma, side effect, sexual function, reconstruction, repair

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Introduction

Paraffinoma of penis is mostly found in Asia-pacific region⁽¹⁻³⁾. A foreign body injected was first used in medical treatment by Gersuny in 1899⁽⁴⁾. Gersuny injected foreign body to replace removed testis from tuberculous orchitis. In Thailand and many countries there are many patients with penile paraffinoma. The operation is widely performed in many hospitals. The operation is done with single or two stages penile paraffinoma repairment. However there are still insufficient data collection with penile paraffinoma, so patients knowledge is too little to inform anyone concerned.

Patients' questions were "when could they use their penis or what would happen to their penis?". Their questions had no clinical data to be informed and they were still question for some physicians. In the urologists' role, these kinds of information should be advised.

This study was designed with the purpose to understand and collect postoperative data. The data were analyzed for patients distribution, hospital stay and post operative status in order to enhance patients understanding and treatment information.

Materials and Methods

All patients who entered this study had a confirmatory history in penile paraffinoma injection. All of them had a paraffin tumor at penile skin, and were willing to have the operation performed for remove paraffinoma. All of them were treated as inpatients in Ramathibodi urology service. All patients received preoperative antibiotic with cefazolin 1 g intravenous every 6 hours and continue for at least 24 hours. Paraffinoma excision was done with one stage or two stages repairment based on skin involved with paraffin and width of scrotal skin. One stage repairment was done with scrotal skin flap reconstruction. Two stages repairment consisted of paraffin excision with scrotal embedding and scrotal

detachment. Each step of the two stages repairment was delayed for at least 6 months.

Paraffin was totally excised except some cases having risk for vascular injury, especially paraffin tumor near suspensory ligament or dorsal vein. Two stage repair was performed after having excised paraffin tumor if their scrotal skin should be insufficient to create scrotal flap. Penrose drain was placed at bilateral scrotal fossa after having excised paraffin and created scrotal skin flap. Skin was sutured with absorbable vicryl 3-0. Foley's catheter was retained for 24 hours post-operation. They were discharged after removal of Foley's catheter and penrose drain. OPD appointment was arranged for clinical follow up.

Results

There were 58 patients included in this study. All of them were confirmed for paraffin injection with history taking and physical examination. 6 of 58 patients were dropped out due to lost follow up. There were 28 patients that performed 1 stage paraffinoma repairment whereas 24 patients performed two stages paraffinoma repairment. Data were collected from patients profile reviewed. Patient distribution and pre-operative physical examination are shown in Table 1.

Patient characteristics shown included age, underlying disease, symptoms after paraffin injection, paraffin injected site and time after paraffin injected. Overall mean age of both groups was 40 year olds. Patients with underlying disease were in a minority group. Overall hypertension, diabetes and dyslipidemia of both groups were 7 (13%), 8 (15%), 2 (4%) respectively. Smoking in 19 from 52 patients (37%) was less than alcohol drinking with (37 of 52 patients, 71%). They took 6 years before coming to see a doctor but it was a shorter duration of time for 2 stages repaired group. Not all of the patients who came to the hospital had a symptomatic presentation. Pain and deformity were commonly found for all patients, with 25 (48%) and 24 (46%), respectively.

Table 1. Patient data for one-stage and two-stage repairment

Type , patient	1 stage repairment (n=28)	2 stage repairment (n=24)
Age, years. (SD)	37 (12.31)	45 (11.7)
Underlying		
hypertension (%)	5 (8%)	2 (18%)
diabetes (%)	4 (14%)	4 (17%)
dyslipidemia (%)	2 (7%)	0 (0%)
Smoking (%)	9 (32%)	10 (42%)
Alcohol (%)	20 (71%)	17 (71%)
Time after paraffin injection, years (SD)	6.17 (5.52)	5.8 (7.07)
Symptom after paraffin injection		
pain (%)	15 (54%)	10 (42%)
infect (%)	7 (25%)	5 (21%)
deformity (%)	11 (39%)	13 (54%)
sexual intercourse function (%)	20 (71%)	17 (71%)
Paraffin site		
distal (%)	12 (43%)	3 (13%)
midshaft (%)	11 (39%)	10 (42%)
proximal (%)	1 (4%)	1 (4%)
entire (%)	5 (18%)	10 (42%)

37 (71%) patients in both groups had normal sexual function before performed surgery. Interestingly, only 12 (23%) patients experienced infection before seeking treatment. Common site of injection was skin shaft of penis, followed by distal and entire skin of penis with 21 (40%), 15 (29%) and 15 (29%), respectively. Only 2 patients had proximal penile skin injection.

The surgical outcome was collected by history taking on the day of their clinical follow-up. The outcome was demonstrated on Table 2.

One stage repairment had total hospital stay approximately 3 days and could return to normal sexual function in approximately 13 weeks. But two stages repairment had 4 days and 3 days of total hospital stay for first stage and second stage repaired respectively. Two stages repairment used longer recovery time for resuming normal sexual function within 9 months. This study had found that post-operative scar contraction was commonly found in

1 stage repaired group. However, post-operative wound dehiscence was commonly found in two stages repaired group. The main reason for re-operative repairment was penile scar contracture. Wound infection was commonly found due to incompletely removed paraffinoma. Post-operative pain was also found in some patients who had incompletely removed paraffinoma or scar contracture.

Discussion

There were hundreds of patients who had penile paraffinoma but data collection in this regard was still lacking. A major problem is patient lost contact due to migration and phone number changing. Data collection process is only by using reviewed patients' profile that might cause unreliable information.

Patients with paraffinoma were commonly found in patients age 30 to 50 years. Most of them were

**Table 2.** Surgical outcome

	1 stage repairment (n=28)	2 stages repairment (n=24)
Hospital stay, days		
first stage, days (SD)	2.39 (0.92)	4.29 (5.35)
second stage, days (SD)	-	2.83 (2.48)
Resume SI function, months (SD)	3.25 (2.85)	9.1 (12.94)
Post-operative sequelae		
scar contracture (%)	10 (42%)	8 (29%)
pain (%)	6 (25%)	2 (7%)
wound dehiscence (%)	8 (33%)	10 (36%)
infected (%)	4 (17%)	3 (11%)
re-operation (%)	9 (38%)	5 (18%)

smoking and alcohol drinking. There were some patients who had an injection during alcohol drinking and followed by group injection. There was similar time duration of seeing doctors after they had had an injection. This could be inferred that paraffin injection was mostly stable for 6 years. The longest duration is 30 years and the shortest is only 2 months. Paraffin injection can cause pain, infection, deformity and unable to intercourse. Pain and deformity were major problems of seeking treatment. Cause of unable to intercourse was giant penis from paraffin injection. There was only 5 patients from 15 patients who made complaint of unable to intercourse, and these patients were more than 50 years old. There might be some degree of erectile dysfunction before treatment. Common site of injection was mid shaft penile skin injection followed by distal skin and entire penile skin injection.

After treatment, the data revealed that there was shorter hospital stay after performed one stage repairment. One stage paraffinoma repairment had shorter sexual recovery time compared with two stages

repairment. The longer time of recovery was mainly due to delayed second stage repairment for at least 6 months. There was no statistical significant difference in post-operative complication between both groups (p -value = 0.176). P -value of scar contracture, post-operative pain, wound dehiscence, wound infection and reoperation were 0.277, 0.083, 0.946, 0.5 and 0.103, respectively.

Conclusion

Most of patients with paraffinoma were in third to fifth decades of life. Alcohol might be a factor that caused penile paraffin injected. Paraffin symptoms might occur after 6 years of injection. Pain and deformity were major reasons for seeking treatment. One stage repairment incurred shorter time of recovery and shorter sexual recovery time. There was no significant difference in post-operative complications between both repairing techniques. Non-significant results were probably due to small size of sample. Another study on a large sample size should be performed to better understand the outcome.



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ผลของการผ่าตัดรักษาพาราฟินทิววยวะเพศชาย

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บทคัดย่อ

วัตถุประสงค์ของการศึกษา: เพื่อทำความเข้าใจ และเก็บบันทึกเป็นข้อมูลเพื่อใช้ในการแนะนำ และให้ความรู้กับผู้ป่วย

วิธีการศึกษา: เป็นการศึกษาแบบค้นหาระเบียนย้อนหลังของผู้ป่วย 58 ราย ที่ได้รับการรักษาในโรงพยาบาลรามธิบดี ผลการศึกษาข้อแรกคือ ระยะเวลาที่ต้องใช้ในการพักฟื้นหลังการผ่าตัดเพื่อการมีเพศสัมพันธ์ได้ ผลการศึกษาข้อที่สองคือ ความแตกต่างของผลข้างเคียงจากการผ่าตัดแก้ไขในครั้งเดียว กับการผ่าตัดแก้ไขสองขั้นตอน ผลการศึกษาข้อที่สามคือ ระยะเวลานอนในโรงพยาบาล

ผลการศึกษา: ผู้ป่วย 6 ราย จาก 58 ราย ได้พ้นจากการทดลองไปเนื่องจากไม่มาติดตามผลการรักษา ผู้ป่วย 24 ราย นั้นทำการผ่าตัดแบบสองขั้นตอน ผู้ป่วยอีก 28 รายได้รับการทำการผ่าตัดในครั้งเดียว อาการที่พบได้ในผู้ป่วยมากที่สุดคืออาการปวดซึ่งพบใน 25 รายหรือร้อยละ 48 รองลงมาคือ อวัยวะเพศผิดปกติ 24 ราย หรือร้อยละ 46 ผู้ป่วยส่วนมากประมาณร้อยละ 70 ยังสามารถมีเพศสัมพันธ์ได้ การรักษาแบบครั้งเดียวนั้น ใช้เวลานั้นกว่า การผ่าตัดแบบสองขั้นตอน ผลข้างเคียงจากการผ่าตัดนั้น ได้เก็บข้อมูลเรื่อง อาการปวด อวัยวะเพศรั้งติง บาดแผลติดเชื้อ แผลแยก อวัยวะเพศผิดปกติ และการทำการผ่าตัดซ้ำ ซึ่งผลการศึกษาขึ้นนี้ไม่มีความแตกต่างกันอย่างมีนัยสำคัญทางสถิติ

สรุป: ในกลุ่มคนไข้มีอายุประมาณ 30-50 ปี และมีประวัติเกี่ยวกับการดื่มสุรา ในกลุ่มผู้ป่วยที่ทำการผ่าตัดในครั้งเดียว ใช้เวลาในการนอนโรงพยาบาลสั้นกว่า และผลข้างเคียงจากการผ่าตัดนั้น ไม่มีความแตกต่างกันในการผ่าตัดทั้งสองวิธี ในกลุ่มการผ่าตัดครั้งเดียวนั้น สามารถกลับมาใช้งานได้เป็นปกติใน 4 เดือน และในกลุ่มสองขั้นตอนนั้นใช้เวลาประมาณ 9 เดือน

คำสำคัญ: พาราฟิน, การผ่าตัดแก้ไข, ผลข้างเคียง, การพักฟื้น, การนอนโรงพยาบาล

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