MANAGEMENT OF THREE (3) CHRONIC PILONIDAL CYST WOUNDS IN THE OUTPATIENT SETTING

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ABSTRACT

This Abstract is a case study of three (3) patients with at least a two (2) year history of treatment for pilonidal cysts. All previous attempts at healing these three outpatients with conventional wound therapies and surgical interventions had failed.

In my twenty three (23) years as a wound care consultant, I have found that pilonidal cyst wounds are notorious for slow healing due to their close proximity to the anus and the presence of hair, both of which contribute to re-infection. Self care is difficult and patients need to rely on caregiver support for wound care. My goal for these patients included the following:

1. Reduce bacterial load.
2. Minimize dressing changes by controlling drainage.
3. Provide comfort and "pain relief".
4. Shorten healing time.
5. Reduce costs.
6. Resume normal activity (i.e., school and work).

Back view

Using a combination of modern wound dressings: a super absorbent polymer* dressing, a bacteriostatic hydrogel** sheet and a partially hydrolyzed collagen*** wound filler, the ultimate goal of healing was achieved in three (3) to six (6) months. These products were easy to use, cost effective and could be applied by family members in the home. In all cases, I was able to reduce dressing changes from two (2) and three (3) times a day to every one (1) or two (2) days. The successful healing of these wounds would not have been possible if only a singular dressing was used. Therefore, it is obvious that to save money when managing wounds the overall outcome must be considered and the reimbursement program needs to be amended to allow more than one dressing to be used at the same time.

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MANAGEMENT OF THREE (3) CHRONIC PILONID

Patient 1 (Identified as JH)

Problem: I was first introduced to JH when he was a patient in our acute care hospital. JH was 16 years old when I began seeing him in November of 1998. I was told that "everything" had been tried to heal this wound but had been unsuccessful. Unique to this case, is that JH had minimal financial resources and treatment costs had exhausted the family due to the two (2) years of several surgical interventions and home health care. I agreed to the challenge of healing this wound. My plan was to follow him in outpatient nursing weekly and to instruct his parents on dressing changes, which would eliminate the need for Home Health. At this point, I was not sure how I was going to do it without funds to cover what I needed to heal this wound. I put the family in touch with a social worker and a hospital "mercy" fund purchased his first supplies. I went home that night and posted this case on the WOCN wound forum for suggestions. Within 48 hours, several wound care companies responded to my plea for help.

Photo #1 11/11/98 - 10cm x 5cm x 8.5cm. Photo taken first post-op day following radical debridement of his pilonidal cyst. He was sent home that evening with the following treatment plan: Cleanse wound daily with normal saline. Calcium alginate dressing packed lightly into the wound and covered with a foam dressing.

Photo #2 12/11/98 - 8cm x 3cm x 4cm. Wound bed was granular. Drainage was a moderate amount of tan fluid with a slight odor. Started using super absorbent polymer* dressing and covered the wound with a bacteriostatic hydrogel** sheet.

Photo #3 12/29/98 - 6cm x 2cm x 2cm. Dramatic improvement in two (2) weeks since switching to SWT's Products. Drainage was controllable with daily changes (super absorbent polymer* dressing and a bacteriostatic hydrogel** sheet), and there was no odor.

1/8/99 (no photo). Unfortunately on this visit, it was noted that the bottom 4cm that had previously closed had now re-opened. The wound now measured: 10cm x 2cm x 2cm. I suggested to the family that it was probably due to the poor tensile strength of the wound and that ever present moisture was a problem. I continued the use of the super absorbent polymer* dressing and covered the wound with a bacteriostatic hydrogel** sheet.

1/15/99 (no photo). The bottom of the wound continued to open despite our interventions. The wound was now measuring: 11cm x 2.3cm x 1.9cm. At this point, I was becoming frustrated and called SWT for suggestions. They agreed to provide another product which was a partially hydrolyzed collagen*** wound filler.

Photo #4 1/22/99 - 11cm x 2cm x 1.5cm. No significant change since last visit. Discontinued the use of the super absorbent polymer* dressing and began use of the partially hydrolyzed collagen*** wound filler and covered it with a bacteriostatic hydrogel** sheet.

Photo #5 2/12/99 - Top of the wound measured 2.8cm x .5cm x 2cm. Bottom of the wound measured 4cm x 1cm x .5cm. (Just two weeks after the start of the partially hydrolyzed collagen*** wound filler covered with a bacteriostatic hydrogel** sheet). Small amount of tan drainage was present. Red wound base. Drainage and odor was minimal. Continued this protocol.

Photo #6 3/19/99 - Pilonidal cyst wound has healed to a 2mm opening. There was no drainage. Patient was instructed to discontinue the use of the partially hydrolyzed collagen*** wound filler and the bacteriostatic hydrogel** sheet and use a dry dressing if necessary. I cautioned him about guarding this area until the tensile strength returned.

Photo #7 3/26/99 - I received a call the day before this photo was taken. JH had gotten into his car and somehow managed to bump his bottom on the console of the car causing his healing wound to open. The re-opened wound measured 4.3cm x 1cm x 1cm. There was odor noted along with green drainage. Restarted him on iodine and covered with a bacteriostatic hydrogel** sheet with instructions to change daily.

Photo #8 5/4/99 - Final photo taken of his wound which, according to his mother, appeared closed on 4-30-99. I talked in length with the patient and family at his final visit about protecting the newly healed wound from further injury. He was instructed to use the bacteriostatic hydrogel** sheet for at least a month until the tensile strength improved. Total encounters with this patient was 21 times from November 11, 1998 - April 30, 1999.


Photo #1 11/11/98


Photo #2 12/11/98


Photo #3 12/29/98


Photo #4 1/22/99


Photo #5 2/12/99


Photo #6 3/19/99


Photo #7 3/26/99


Photo #8 5/4/99

Rationale: Prior to my interventions with JH, he had always been followed by Home Health and used normal saline dressings, which required visits twice a day. With my plea via the internet and several wound care companies responses to help, I found that SWT's products were easy to apply and very effective at controlling drainage. Once I saw the rapidness of wound healing with their trial samples, all other therapies were discontinued and I used SWT's products exclusively.

Methodology: Products I used in order on JH: wound cleansers, calcium alginates, foams, VAC therapy, iodine, super polymer absorbent dressing, bacteriostatic hydrogel sheet, partially hydrolyzed collagen wound filler, and dry dressings.

Results: JH showed great improvement in his wound in the four (4) months I worked with him. The dressings I used controlled his drainage and odor and allowed him to return to "normal" activities-school and work. The dressings were comfortable and easy for the family to change.

Conclusion: The partially hydrolyzed collagen*** wound filler and the bacteriostatic hydrogel sheet** dressings were most successful of all that were used on JH. Because of my experience with these products, I have successfully treated two other pilonidal cyst wounds. The greatest benefit to this therapy has been the control of drainage, odor, and infections, as well as, ease of application. I have been able to educate caregivers with this protocol and have eliminated the need for Home Health.

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Patient 2 (Identified as AH)

Problem: AH is a 19 year old college student whom I was asked to see in the acute care hospital one day post-op following a second radical surgical debridement of a pilonidal cyst (12/16/98). AH first noticed his cyst in August of 1997, when he experienced bleeding in the area after mowing the grass. He began local treatment after that time. In June 1998, he had a surgical debridement with closure but it re-opened. AH has no other medical problems. He lives at home with his parents who performed the daily dressing changes. Unique to AH, was the hypergranulation tissue which impeded his healing.

Photo #1 12/16/98 - 12cm x 3cm x 4.5cm. First day post-op following debridement. AH had to be cauterized for severe bleeding after removal of his packing. Since he was still in the acute phase of healing and because of the bleeding, I opted to send him home with home health follow-up and B.I.D. dressing changes with normal saline moistened gauze. His follow-up appointment with me was in two (2) weeks in the outpatient department.

Photo #2 12/29/98 - 12cm x 2cm x 3.7cm. Presented in the outpatient department with a heavily draining wound. The drainage was green but without odor. His gauze dressing and tape were causing discomfort and pain when he walked. The wound was 100% red at the base and sides. Treatment plan was switched to include iodine, super polymer absorbent* dressing and cover with a bacteriostatic hydrogel** sheet. The mother did the dressing procedure and found it to be fairly simple so home health was discontinued.

Photo #3 1/29/99 - 8cm x .5cm x .8cm. Met the patient and his mother in the surgeon's office who performed a radical debridement of the hypergranulation tissue. Wound has shown significant improvement in depth. Treatment remained the same.

Photo #4 3/3/99 - Top of wound almost healed except for a 2mm and 4mm opening. At the bottom, a .5cm area of granulation tissue was noted. Hypergranulation tissue has improved. At this point we discontinued the super absorbent* dressing and bacteriostatic hydrogel** sheet and applied a dry dressing.

Photo #5 4/7/99 - AH returned to the clinic with complaints of pain and the wound continued to have drainage. Opening was reduced to a 1.75cm slit. Hypergranulation continued and began to form a hypertrophic scar. Another radical debridement of this tissue was scheduled for the following week. After the debridement was performed, treatment was to continue the use of the bacteriostatic hydrogel** sheet only as it has been shown to reduce scar formation.

Photo #6 5/11/99 - Scarring was reduced in this photo. However, the opening was somewhat larger possibly due to the debridement procedure three weeks prior. The opening now measures 3.5cm x 1cm x 1.5cm. The presence of hair continued to remain a problem. There was some undermining at the 12 o' clock position which communicated to the pin point opening 1cm above the larger ulcer. Patient and mother were instructed to remove the hair daily after cleansing the ulcer with a cotton-tipped applicator. The mother used glycerine in liquid form, warmed in the microwave, and applied it to the undermined areas because of it's antimicrobial properties. Follow-up will continue until the ulcer is completely healed.


Photo #1 12/16/98


Photo #2 12/29/98


Photo #3 1/29/99


Photo #4 3/3/99


Photo #5 4/7/99


Photo #6 5/11/99

Rationale: Once AH was carefully monitored at home following his episode of bleeding after the initial removal of his packing, I wanted a treatment plan for him that would provide comfort, reduce the bacterial overload, and be easily managed by his mother.

Methodology: An absorptive super absorbent* dressing and hydrogel sheet** were used to replace the normal saline moistened gauze.

Results: AH showed great outcomes with these products, despite the ever presence of hypergranulation tissue. He is almost completely healed in three (3) months. One of the biggest benefits to using this protocol was the comfort compared to gauze dressings. He also had no further bacterial contamination following the use of the hydrogel sheet**.

Conclusion: This protocol allowed me to meet my goals with this patient. Although, I am still following him because of the hypergranulation tissue, it is my feeling, that once the drainage stops, this will no longer be a problem

Patient 3 located on back page

Patient 3 (Identified as MM)

Problem: MM is a 60 year old female who has had drainage from a pilonidal cyst for two (2) years. She has a history of rheumatoid arthritis and hypertension. Her nutrition was good. Previous to seeking surgical intervention she used an antibiotic ointment and dry gauze to control the drainage. On September 21, 1998, she had a radical surgical debridement of this area, which was left to heal by secondary intention. She was managed at home with daily dressing changes by her husband, which was only dry gauze. I was first asked to evaluate her in the surgeon's office 2 months after her debridement when she failed to show improvement. The patient and her husband were very compliant and agreed to follow-up in the outpatient nursing department where I could monitor the treatment plan.

Photo #1 11/25/98 - 10.5cm x 3cm x 2.2cm. Wound bed was 80% red granular tissue and 20% white slough. There was a large amount of tan foul-smelling drainage. My treatment plan at this time included wound cleansing, iodine to reduce the bacterial load, an alginate and a foam dressing.

Photo #2 12/15/98 - 6.3cm x 3cm x 2.2cm. Minimal odor, drainage decreased. Discontinued iodine and switched from alginate and foam dressing to a super polymer absorbent* dressing and covered with a bacteriostatic hydrogel** sheet. Daily dressing changes recommended.

Photo #3 1/5/99 - 4.2cm x 1.5cm x 1cm. No odor, minimal drainage. Continued with same treatment. Dressing changes reduced to every other day.

Photo #4 2/23/99 - 5cm granulated area which needed to epithelialize. Patient was discharged from my care. Patient also stated that her wound actually healed two (2) weeks prior (2/9/99) to that but was unable to keep that clinic appointment.

Photo #1 11/25/98

Photo #2 12/15/98

Photo #3 1/5/99

Photo #4 2/23/99

Rationale: Although this patient was showing improvement with other wound therapies before I began intervention on 11/25/98, she continued to require daily dressing changes because of the amount of drainage and associated odor. Her peri-wound skin was always excoriated from the tape she used. On 12/15/98, I switched her to the protocol of super absorbent* dressing and a bacteriostatic hydrogel** sheet to control the drainage, reduce the bacterial overload and to decrease costs by reducing dressing changes. Improvement after this procedure was dramatic.

Methodology: This patient was discharged from my care with a healed wound in about two and a half (2-1/2) months.

Conclusion: The benefit of using the treatment plan consisting of the super absorbent* dressing and bacteriostatic hydrogel** sheet is that it did control bacterial contamination and drainage. It also reduced the dressing changes to a minimum and dramatically reduced her healing time.

Cost savings summary for Patient 1 (Identified as JH)	
BEFORE ET INTERVENTION - Approximately 2 year treatment	
Hospital 11/12 - 11/13, 1996	$ 3,302.80
Pathology	$ 75.00
Misc. Drugs	$ 343.00
Ambulance	$ 151.00
Home Health	$ 2,340.00
ER	$ 72.31
Anesthesia	$ 500.00
Hospital 11/10/98	$ 2,886.76
TOTAL	**$ 9,670.87**
AFTER ET INTERVENTION - (11/11/98 - 5/4/99)	
ET clinic vs. X 21	$ 488.25
Products used	$ 801.00
TOTAL	**$ 1,289.25**

CONCLUSION - A savings of $8,381.62 was realized using ET intervention and specific products designed to provide a superior healing environment. The savings are even more dramatic when you add the cost of the products used over the two year period before ET intervention.