Abstract

Comparative Study on the Effect of Hemovac drain and Penrose drain in Case of Radical Surgery for Cervical Carcinoma

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In the operation of radical hysterectomy with pelvic lymphnode dissection, the method of drainage of secretion accumulated in operating wound has been a serious problem for gynecologists since the operating technic was described by E. Wertheim in 1912.

Traditionally, open drainage had been used with various complication caused by a large dead space created by surgical dissection and associated contamination.

A randomized retrospective and prospective trial of closed suction drainage using Hemovac compared with open drainage using Penrose drain after radical hysterectomy with pelvic lymphnode dissection is performed to evaluate the effect of drainage in 162 cases.

The results of this study are as follows:

1. There were no significant differences in clinical characteristics such as clinical stages of cervix cancer, patient's age, amount of blood transfusion during operation.

2. Average amount of drainage during 5 days after operation were 727.7±168.4 ml in Hemovac group, and 233.7±68.4gm in Penrose drain group. The difference between the two groups is statistically significant (p<0.01).

3. Average duration of injection antibiotics administration after operation were 13.6 ±3.2 days in Hemovac group, and 18.7±4.6 days in Penrose drain group. The difference between the two groups is statistically significant (p<0.05).

4. Average duration of oral antibiotics administration after operation were 20.4±7.8 days in Hemovac group and 28.7±9.8 days in Penrose drain group.

The difference between the two groups is statistically significant (p<0.01).
5. Average duration of fever after operation were 5.1±3.2 days in Hemovac group, and 10.7±4.3 days in Penrose drain group.

The difference between the two groups is statistically significant (p<0.05).

6. Average amount of residual urine after first self voiding were 144.7±57.6 ml in Hemovac group, and 127.4±48.9 ml in Penrose drain group.

The difference between the two groups is statistically not significant.

7. Average leucocyte count on 6th and 14th day after operation were statistically fewer in Hemovac group than in Penrose drain group (p<0.05).

8. Average duration of hospitalization after operation was 19.9±5.3 days in Hemovac group and 27.4±7.2 days in Penrose drain group.

The difference between the two groups is statistically significant (p<0.01).

9. The complications which were related to effectiveness and method of drainage were fewer in Hemovac group than in Penrose drain group.

I. 論 議

外科의 手術後 排液法은 Hippocrates時節부터 試験
되어 왔고, 아직도 使用에 따른 意見 對立이 있
筭과 仍어 안전하고 功效의 인 排液方法を 追求하는
 것은 確実히 바람직하다①。

大部의 骨盤腔의 療法手術後 廢液은 骨盤腔內 構
造炎과 感染تبع들은 ②, 이는 廢液を 感染에 適当한
場所에서 切断하기 배운 것이라고 생각된다. 따라서手
術後 骨盤腔內 廢液的 功效의 인 除去가 骨盤腔炎症
と 廢液率를 減少시키는데 제한 필요하다③。

1912年 Wertheim이 子宮頸癌에 對한 手術방법 即
廣範圍 子宮摘出術 및 骨盤淋巴腺切除術을 記述한 後
骨盤腔의 排液法에 對하여 많은 異見들이 繼效어 왔
던. 過去에 主流을 이룬 方法는 開放排液法으로 骨盤
切斷部を 開放시키고 骨盤腔內에 카이페를 注入하거나④
고무 排液管⑤, 유리管⑥ penrose 排液管이나 paracocy
gial drainage⑦ 등을 使用하여 排液하는 것이었다. 그
러나 1940年代에 Murphey⑧, Raffenblich⑨ 등은 吸引排
液法이 廢液防止에 功效가 있고 患者들의 死腔を 減
少시켜 手術後 廢液率 및 合併症을 減少시키며 排液法
測定에 可能한 문 아니라도, 患者가 보다 安楽하고, 醫
師나 病患의 努力を 減少시켜 經済的의 目的도 有益하
다고 하였다. 近年來는 子宮頸癌 手術後 開路吸引
排液法을 利用하여 治療率를 높일리는 試験이 많아지
고 있다⑩⑪。

首爾大學病院 產婦人科에서 1980년 3月부터 子宮
頸癌 手術後 Hemovac閉路吸引排液管을 部分의으
로 試用하더니 臨床經過가 좋아 現在는 大部分 이통

使用하고 있다.

이에 著者들은 子宮頸癌 手術後 Hemovac使用
群과 從來 主蓮을 이룬 penrose 排液管 使用群間에 手
術後 排液法 및 臨床經過 等을 比較観察하여 兩群에
 있어서 排液效果, 術後 臨床經過 및 合併症 等을 統計
分析하고 若干の 成績을 얻었기에 그 文献의 考察과
아울러 이를 報告하는 바이다。

II. 對象 및 方法

1980년 1月부터 1981년 6月까지 首爾大學校病院 產
婦人科에서 子宮頸癌 手術後 患者 203例 增
加된 212例에 對象으로 分析観察하였다. Hemovac은 1980년 3月부터 試驗의으로 使用하여오나
가 現在는 大部分의 手術後 用いて오기 때문에 調
査對象中 penrose 排液管은 前半期에 Hemovac은 後半
期에 주로 使用하여서 無作業抽出이 可能하였다.

Fig. 1. A Photography of patient carrying hemovac.