

# Research and Analysis for Cancerous Perianal Disease

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**Abstract:** **Objective** To analyze cancerous perianal disease. This study summed up the effective measures for prevention and treatment of perianal cancer patients. **Methods** Twelve perianal cancer patients were recruited from June 2011 to June 2016. Retrospective analysis was carried out for the 12 patients and further discussed for the factor of cancerous and effective treatment. **Results** Systematic analysis found out that six patients had hemorrhoids cancer (only two patients received treatment, one patient had metastasis and received chemotherapy; 1 patient had good prognosis after colon diversion; the rest of the patients were discharged from the hospital and received conservative treatment but treatments were ineffective and the condition worsen), two patients had anal fistula cancer (one patients underwent surgery, one patient gave up treatment), two patients had anal cancer (both underwent surgery), one patient had perianal skin squamous cell carcinoma (patients were transfer to other hospital for treatment), one patient had perianal melanoma (inpatient due to perianal neoplasm, histopathology confirmed melanoma and patient gave up for treatment). **Conclusion** Perianal cancerous phenomenon is unfavorable for the quality of life and health of patients. The relevant medical institutions must actively take measures against the perianal cancer, which has significant effect to survival of patients.

**Key Words:** perianal disease; cancer; treatment; prevention

Evolution process of cancerous perianal disease is very fast. Current clinical data shows that perianal cancer progression rates still relatively high, which is unfavorable to the survival of patients. Therefore, the relevant medical staff must actively take measures against the occurrence of the phenomenon of perianal cancer and reduces the chances of perianal cancer, which has significant effect to survival of patients.

## 1. Materials and Methods

### 1.1 Study Subjects

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doi: <http://dx.doi.org/10.18686/aem.v6i1.87>

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The study subjects who underwent treatment for perianal cancer in Affiliated Hospital of North Sichuan Medical College were selected from June 2011 to June 2016. This study included 12 patients, where 8 patients are male and 4 patients are female. The average age of patients was 54 years, the oldest patient was 62 years old, and the youngest patient was 39 years old. Initially, 12 patients had hemorrhoids which associated with common clinical manifestations that accompanied with circumferential mixed hemorrhoids prolapse, rectal prolapse and bloody stool (red, alternately appear dark red or mixed color and defecation difficulty). Twelve patients did not receive surgery on time, mainly due to lack of attention for the disease by patients themselves. The reasons of hospitalization for 12 cases are substantially similar, which included long-term and continuous appearance of blood in stool. These symptoms affect normal life of the patients. After the patient hospitalized, treatment compliance of patients was not good. Most of the patients chose to discharge from hospital when the symptoms have slightly improved. Inadequate treatment with perianal disease is the main cause of recurrence of perianal disease. Informed consents were obtained from all the patients and their families before this study was carried out. No obvious abnormalities were observed in mental state of all hospitalized patients. Age, course of disease and non-related factors to this study showed no statistically significance difference between the patients.

## 1.2 Treatment Methods

After the patient was diagnosed, the relevant medical staffs have to choose the appropriate treatment based on the specific circumstances of patients, which guarantee the effectiveness of treatment. Before treatment of patients, health care workers checked the lesion in patients with MRI and CT examination. Doctors can understand the disease condition of the patient and the mechanism of lesions. Treatment for patients with perianal cancer was adjuvant therapy of surgery and chemotherapy. In order to ensure smooth progress of surgery, surgical medical staff must conduct a series preoperative preparation. The patients received preoperative routine examination, such as blood, blood coagulation (PT, ACT, APTT, Fbg and TT), hepatitis B (HBeAg, HBSAg, anti-HBS, anti-HBe and anti-HBc) and hepatitis C. In addition, other routine examinations are involved liver and kidney function testing, electrocardiogram, and urine test. Carcinoembryonic antigen and associated tumor markers test, colonoscopy, ultrasound, CT and MRI were carried out for patients but the histopathology results are still the gold standard for diagnosis of perianal disease patients.

Prior to surgery, patients must fasting and receive skin preparation and enema. Atropine sulfate injection and pentobarbital sodium injection were provided before surgery to ease the tension of patients. Surgery can be carried out after a series of preparation. The method of the surgical procedure used was Miles radical surgery. However, the patients who have been suspected with inguinal lymph node metastasis, inguinal lymph node dissection must be carried out during the Miles radical surgery. After the surgery, 8 patients with symptoms of adenocarcinoma received drug treatment and specific type of chemotherapy according to the patient's specific circumstances in order to ensure the outcomes. Degree of physical injury to the patient throughout the treatment must be minimized as much as possible. This has a very important significance on tolerance of patients throughout the treatment.

## 1.3 Statistical Analysis

SPSS18.0 software was used to analyze data in this study. Data in this study showed some statistically significance. The differences among the patients showed  $P < 0.05$ .

## 2. Results

Six patients had hemorrhoids cancer (only two patients received treatment, one patient had metastasis and received chemotherapy; 1 patient had good prognosis after colon diversion; the rest of the patients were discharged from the hospital and received conservative treatment but treatments were ineffective and the condition worsen), two patients had

anal fistula cancer (one patients underwent surgery, one patient gave up treatment), two patients had anal cancer (both underwent surgery), one patient had perianal skin squamous cell carcinoma (patients were transfer to other hospital for treatment), one patient had perianal melanoma (inpatient due to perianal neoplasm, histopathology confirmed melanoma and patient gave up for treatment).

### **3. Discussion**

With the continuous development of society, the prevalence of perianal cancer in recent years has increase at an alarming rate. According to previous report in China, the total incidence of anal diseases was 59.1% among 76692 people in 155 units from 1957-1977. The total incidence of hemorrhoids was 46.3%, which is considered high prevalence compared with the related diseases. The main reason of this phenomenon is due lack of awareness of the perianal disease. The patients think that harm of perianal disease to the body is not particularly large. Patients refuse treatment once the situation has improved, which is an important cause of recurrence of perianal disease. Varied with other types of diseases, the perianal disease has high recurrence rate. If the perianal disease does not cure completely during the treatment course, it will deepen the disease progression, and then the probability of cancerous perianal disease will rise. Generally, cancerous perianal disease occurs in patients with treatment in 1-2 years. The condition deteriorated very fast, and therefore the relevant medical institutions must pay more intention to this situation<sup>1</sup>.

Even though awareness for colorectal cancer has become more popular, awareness for perianal benign disease is still not enough as patients think that hemorrhoids are irrelevant from health and they fear of surgery. Outpatient clinics found that benign perianal disease is more prevalent, mostly due to the appearance of blood in the stool and other reasons. The preliminary investigation involved hemorrhoids, anal fissure, anal fistula and other common benign disease. Many patients failed to comply with standard treatment due to economic, embarrassing with their private parts, lack of medical knowledge (eg. Patients think that hemorrhoids are very common and it will relapse after surgery) and psychological reasons. After discharged from hospital, patients suffer with recurrent bloody stool, but pay no further attention and refuse surgery. After at least one year, or as long as 3-4 years, the perianal disease deteriorates and develops to cancer stage. Therefore, diagnostic and treatment practices, medical knowledge and health utilities subsidy measures must be taken to prevent malignancy.

Anal fistula perianal disease is one of the common causes of cancer phenomenon. The factor of the phenomenon of anal fistula is long-term inflammation of the anus. Anal fistula will increase the chances of anal cancer in patients<sup>2</sup>. Cancerous perianal disease has been emphasized since 1927, previous study clearly pointed out that the presence of perianal inflammation may induce mucosa white phenomenon, and may induce anal cancer. However, there are still some controversial mechanisms and factors for the anal fistula cancer. The medical professions generally believe that the factor that causes anal fistula cancer is perianal gland where the cancer tissue is generated. In other words, perianal gland infection causes cancerous perianal disease<sup>3</sup>. Fistula with a long time of onset and recurring can cause inflammation and proliferation of tissue, and then can lead to tissue dysplasia phenomenon, which is a prerequisite for cancer patients. If perianal fistula and related diseases cannot get timely treatment or lack of treatment, symptoms such as narrowing and twisted of anal, and poor drainage will occur. Recurrent infections and proliferation of scar tissue will induce localized poor blood supply, and then induce repeated infections and proliferation of fibrous tissue in chronic suppurative foci, which provide favorable conditions for cancer tissue. In the long-term stimulation of inflammatory response, infected tissue in fistula will produce a series of changes, and these changes will gradually induce carcinogenesis<sup>4</sup>.

Besides anal fistula, hemorrhoids play an important role in the whole process of cancerous perianal disease. Incidence of hemorrhoids as a starting point of perianal cancer has increased in recent years. Patients commonly do not think

hemorrhoid as a disease, thus they will not visit a doctor as long as the symptoms of hemorrhoids do not affect life of patients. This wrong concept indirectly increases the probability of other perianal disease and perianal cancer, which is extremely unfavorable for rehabilitation of patients<sup>5</sup>. Therefore, patient and medical institutions should focus on treatment of hemorrhoids and perianal diseases in order to avoid further deterioration of the disease. It is important to minimize the chance of perianal cancer to ensure the quality of life of patients. MRI, CT and other detection instruments were used for diagnosis of perianal cancer. The perianal skin of cysts is obvious, which is different from other tumors. Appropriate measures should be taken to ensure that the cancerous condition of the patient was detected timely and targeted therapies for patients are extremely important<sup>6</sup>.

Besides these advanced detection instruments, the traditional examination is important in the detection of patients with perianal disease. Anorectal disease can be detected by rectal examination to make a preliminary diagnosis. Fingers are more flexible in detecting small nodules, ulcers, area, hardness, location, and presence of mucus pus and blood. Fingers can sometimes get more accurate results than endoscopy and X-ray and thus can be considered as one of the most effective examination methods for anorectal disease, especially for early detection of colorectal cancer. The right index finger coated with liquid paraffin, glycerin or soap is usually used for rectal examination. First, gently massage the anus of patient to avoid tension and touch the anus skin lumps, sinus cords and external hemorrhoids. Patient can take a deep breath to relax the abdominal and anal muscles and relieve the abdominal pressure and muscle tension. Then, put fingers gently into the rectum and anal canal, followed by checking the tightness of the anal sphincter and anorectal ring. During the inspections, use gentle movements as much as possible to reduce the harm to the patient.

In summary, perianal cancer rate is relatively high. In order to reduce the cancerous perianal disease, patients with symptoms of perianal disease must ensure early detection and early treatment. Relevant medical knowledge is important to improve health and prevent cancerous perianal disease. After completion of treatment, patients should improve eating habits and lifestyle to reduce the risk of recurrence of perianal disease<sup>7</sup>.

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