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Liver Disease Secondary to Milligan - Morgan: a Report of 2 Cases

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Abstract: ***Milligan - Morgan (M-M) is the traditional surgery way of treating hemorrhoids at home and abroad, but the larger surgery surgical trauma and postoperative wound healing time is longer, wound care undeserved easy to trigger a surgical site infection, bacteria into the blood may also cause other parts of the infection. This paper reports 1 cases of mixed hemorrhoid external strip in postoperative secondary process of diagnosis and treatment of patients with bacterial liver abscess, 1 cases of mixed hemorrhoid external strip in postoperative patients with secondary Liver injury after the diagnosis and treatment. This study provides a reference for the prevention, diagnosis and treatment of such complications in patients with mixed hemorrhoids.***

Keywords: Milligan-Morgan Hemorrhoidectomy, Bacterial liver abscess, Liver injury.

1. Introduction

Mixed hemorrhoids is a common anorectal disease with symptoms. such as anal pain, difficulty defecating, anal distention, blood in the stool, etc. In severe cases, annular hemorrhoids can even be prolapsed, which seriously affects the quality of life of patients. For mild cases, drug treatment can be used, and for those who are seriously affected by life and drug treatment is ineffective, surgical treatment can be selected. Postoperative wound is open, prone to fecal contamination, complications, thus affecting wound healing, and even life-threatening in severe cases.

2. Case 1:

2.1 Clinical Data

Ms. Hu, female,49, because "when the anus swollen content emergence 30 years" on January 15, 2024, 08:14to the hospital. Patients with 30 years ago because of anal lesions emerge when appear dry stool, can recover after emergence, after the mass emerge gradually aggravate, need hand recover after emergence, with pain, bloody, do not make special treatment, repeated attacks, gradually aggravate, defecate dry, Once a day, urinate normally, can eat, sleep, presently for treatment, hence to our hospital clinic. The patient was admitted to the outpatient clinic as "mixed hemorrhoids". Hospital disease see: anal lesions emerge when, after hernia can recover, after the mass emerge gradually aggravate, need hand recover after emergence, with pain, bloody, do not make special treatment, repeated attacks, gradually aggravate, defecate dry, 1 day/time, urinate normally, can eat, sleep. Everyday physical and deny flustered, chest tightness, shortness of breath. No recent symptoms such as fever and cough. He denied medical history of hypertension, diabetes, heart disease, infectious diseases such as hepatitis and tuberculosis, and drug and food allergy. Line 10 years ago Yu Qingyang city people's hospital "crissum abscess surgery" (no specific operation).

2.2 Treatment History

Physical examination: vital signs: temperature: 36.5℃, pulse: 80 times/min, respiratory rate: 20 times/min, blood pressure: 122/80 mmHg. The mind clear, the general circumstances, heart, lung and abdomen medical examination. such as not seen obvious abnormity. Special examination (lithotomy position): Visual examination: there was no deformity in the anus, and the mass was seen outside the anus. The digital examination showed that the mass was soft, the anal sphincter function was good, and the skin and mucosa in the anus near the 3, 5, 7 and 11 o'clock positions were swollen and congested, and the texture was soft. A papilliform lesion was palpable near the anorectal line at 5 o'clock, and no blood was seen at the fingertip exit. No obvious abnormalities were found in routine blood test, renal function test, electrolyte test, blood lipid test, blood coagulation test and blood transfusion test. Twelve- channel electrocardiogram showed sinus rhythm with left axis deviation and normal electrocardiogram. Chest CT showed fibrous cords in the right upper lobe of the lung. Anorectal department (ultrasound) showed that after perianal abscess operation, Superficial perianal, the echo of subcutaneous soft tissue at the postoperative scar was uneven. Intracavitary: There was no obvious abnormality in the sonogram of anal canal wall. Please observe closely and recheck at any time. Admission diagnosis: traditional Chinese medicine diagnosis: hemorrhoids (damp invasion of lower energizer). Western medicine. diagnosis: 1) Mixed hemorrhoids 2) Anal hypertrophic nipple.

Combined with medical history, symptoms and preoperative imaging examination, preoperative diagnosis: traditional Chinese medicine (TCM) diagnosis: hemorrhoids (damp invasion of lower energizer). Western medicine. diagnosis: 1) Mixed hemorrhoids 2) Anal hypertrophic nipple. In the day to Combined spinal-epidural anesthesia downlink Milligan-Morgan hemorrhodectomy, resection of anus papillary fibroma.

The patient was placed in the lithotomy position.

(1) After satisfactory anesthesia, the lithotomy was placed in the bed. After routine disinfection, a sterile surgical sheet was laid, and a new dish Anerdian cotton ball was taken for anal disinfection three times.

(2) Expand anus to accommodate 4 fingers. Anus in 3, 5, 7, 11 o'clock anorectal line visible to uplift, mucosa hyperemia.

(3) Electricity cutter resection, 5 o'clock near the nipple biological samples, to be curved tongs clamped uplift mucosa at the top of the 3 o'clock, make V notch at the bottom of the outside its Basilar part, stripping external piles part to anorectal 0.5 cm, with another bent clamp clamps, along with hemorrhoids part 4 ligation thread clamp, remove excess tissue. With the method of dealing with 5, 7, 11 o'clock and haemorrhoids. Note that the ligation of hemorrhoids is not on the same plane, and the skin bridge between the hemorrhoids is fully retained. The mixture of methylene blue, ropivacaine and normal saline was injected subcutaneously.

(4) Trim the skin margin and ligation all bleeding points by electrocoagulation. After observing that there was no bleeding on the wound, the oil gauze was bandaged under pressure, and the surgical instruments and gauze were counted accurately before returning to the ward. Pathological examination.

(5) Intraoperatie blood loss about 10 ml, stable vital signs, the routine anesthesia effect is satisfied.

Postoperative diagnosis: TCM diagnosis: hemorrhoids (damp invasion of lower energizer). Western medicine. diagnosis: 1. Mixed hemorrhoids 2. Anal hypertrophic nipple. Pathological results shown: (anus) external piles, with thrombosis machine, local surface squamous papillary hyperplasia, interstitial edema.

2 days postoperatively anti-infection rehydration treatment, daily by microwave treatment, acupoints were applied, traditional Chinese medicine (TCM) packet, Chinese medicine drip into the rectum, red light irradiation, the treatment such as traditional Chinese medicine fumigation, specialist treatment. 8 days after discharge. After discharge, keep the stool unobstructed and formed, do not squat for a long time, sit for a long time, and stand for a long time. 2 Refrain from spicy food stimuli; Continue to the toilet with traditional Chinese medicine fumigation, treatment.

15 days postoperative with high fever developed. The patient's highest temperature was 42℃, accompanied by right upper abdominal pain, dizziness, no nausea and vomiting, no diarrhea, no cough, no expectoration. He was given antipyretic and other symptomatic treatments in the local clinic, but no significant improvement was observed. On January 31, the patient was admitted to Qingyang People's Hospital for abdominal CT examination, which showed multiple low-density shadows in the liver. WBC: 17.29 x109/L, neutrophil percentage of 0.936, the platelet count 4 x109/L, PCT: 70.6 ng/m. Gives anti-infection, platelet and other symptomatic support treatment, patients with high fever is not retreated. Consider critical disease. 02-05 Xijing hospital emergency treatment, check the chest Yang c: 1) The double lung multiple patch and nodular shadows, part of the mergerof space. 2) The liver has multiple monocysts, multilocular cystic space-occupying lesion, and the infection, anemia, rehydration against into ICU treatment after treatment, Give fight infection (Imipenem02-06 to 02-15, Cefoperazone-sulbactam 02-16 to 02-18), correct hypoalbuminemia, rehydration, correction of anemia, such as anticoagulant support therapy; In 02-07 Percutaneous transhepatic gallbladder drainage, tube drainage gives light bloody fluid 330 ml, send etiology examination results were negative, review the liver ultrasound tip liver abscess is absorbed before, in the 02-18 to wipe out the liver abscess drainage tube after discharged from hospital. Continue to oral drug treatment after discharge (amoxicillin clavulanic acid potassium), crissum wound dressing 2 times/day, continued oral cutting shaaban 10 mg Once a day. 02-20, consciously liver area unwell, pain in patients with defecation anus, slight pain, bloody, cough, cough up white phlegm, phlegm quantity is less, poor appetite, sleep is poor. Deny flustered, chest tightness, shortness of breath.

In order further treatment, then in the 02-29 to our department. Physical examination showed that the body temperature was 36.5℃, the pulse 80 beats /min, the respiration 20 times /min, and the blood pressure 135/80mm Hg. Body mass index (BMI2): 28 kg/m2. Mind clear, the general circumstances, such as cardiopulmonary medical examination no seen obvious abnormity abdomina plain soft, periumbilical tenderness, positive, no rebound tenderness and muscle tension. Specialist examination (lithotomy position): Visual examination: no anal deformity, surgical scars can be seen at 3, 5, 7 and 11 o'clock outside the anus. Digital examination showed that the function of anal sphincter was good, and there was no uplift or congestion in the skin and mucosa near the anorectal line at 3, 5, 7, and 11 o'clock in the anus, and the surgical scar could be felt. There was no blood staining at the finger cuff exit. Auxiliary examination: blood routine five classification: RBC:3.3x1012/L, HGB:99g/L; Renal function four: creatinine (HR) and shaanxi: 45 μ mol/L; Liver meritorious service: direct bilirubin: 8.3 μmol/L,Y- pancreatic acyltransferase: 85 U/L, total protein (HR) and shaanxi: 63.3 g/L, albumin (shan R): 34 g/L, white balls than: 1.16; Four of electrolyte, the BNP, PCT were not seen obvious abnormity, etc. No obvious abnormal electrocardiogram, anus ultrasound. Chest CT showed fibrouscords in the right upper lobe of the lung. Ultrasound: liver: size is normal, liver edge is smooth, with several low intrahepatic nodules, larger about 44 mmx31mm, boundary owes clear, owe rules, form of a CDFI: with point strip blood flow signals inside; Residual liver spot even and intrahepatic bile duct expansion, portal vein diameter 10 mm, of a CDFI did not see abnormalities. Gallbladder: size is normal, capsule wall is coarse, no exception in the cavity, common bile duct diameter 5 mm, not agent and abnormal inside. Results: intrahepatic multiple low echo tubercle, consider 1. Abscess 2. Ca, suggested in combination with clinical further examination, the gallbladder wall is coarse. Reexamination of liver, gallbladder, pancreas, spleen and kidney ultrasound showed multiple hypoechoic areas in the liver, which was considered to be liver abscess (there was no obvious fluid area in it). Diagnosis is: TCM diagnosis: hemorrhoids (damp invasion of lower energizer). Western medicine. diagnosis: (1). Mixed hemorrhoid (after); (2). Liver abscess; (3). Pulmonary abscess with Pneumonia; (4). Bacteremia; (5). Gastric ulcer; (6). Hypoproteinemia; (7). Moderate anemia; (8). Deep venous thrombosis; (9). Simple renal cyst (double side)

Liver disease, surgery, gynecology, please consultation after. (1) Perfect the relevant inspection, results: the urine pregnancy (HCG) negative, blood culture negative, sputum

culture: gram positive bacillus: + / oil mirror, gram- negative bacillus: + / oil mirror, sample evaluation: acceptable samples. Appendix, uterine accessories ultrasound: uterine fibroids anterior chamber on the right side of the attachment area cyst; No prolapsed middle compartment was found in the bladder. Child officer did not see prolapse; After chamber not seen prolapse of rectum levator in no expansion. (2). The patient was treated with imipenem and cilastatin sodium for 2 weeks, and then the second and third generation antibiotics (cefotaxime sodium) were changed. (3). Regularly review the liver ultrasound, according to the condition is changed to oral (a total of 3 to 4 weeks), rest, avoid cold, avoiding greasy spicy food.

The 2024-03-21 patient's condition improves, review Ultrasound: large area of intrahepatic keyed acoustic area, consider a liver abscess (the previous range slightly decrease). Shall be discharged from hospital after the local review regularly, 04-09 we review the abdominal and pelvic CT: slightly low density focal liver in multiple sizes, boundary is not clear, about 39 x34mm highly actie. No expansion of bile duct of liver inside and outside change: liver visible arc liquid density; No exception in the gallbladder, density; The pancreas was normal in size and shape. No exact abnormal density in the pancreatic parenchyma, no expansion of the pancreatic duct. There was no abnormality in the shape, size and density of the spleen. Double kidney visible small circular low density foci, highly actie. 8 mm in diam., hepatic door and retroperitoneal multiple enlarged lymph nodes. Full bladder is good, wall thickening, enhanced scan without changing superficial organ reinforcement. Child officer within multiple circular etc density, highly actie about 40 x 36 mm, boundary owes clear; On the right side of the attachment area visible class circular low density foci, size about 27x21mm, direction normal pelvic muscle, ligament, insufflate no narrow. Pelvic small amounts of liquid density, pelvic multiple enlarged lymph nodes. Results: Comparison with the previous 2024/3/19 images of the whole abdomen:1. After the multiple liver abscess puncture, the scope of the lesion was smaller than before, and the density was lower than before. Liver door, retroperitoneal and pelvic multiple enlarged lymph nodes. 2. Double renal cyst. 3.Uterine fibroids may; On the right side of the attachment area cystic stove, ovarian cyst, with the former. 4. The original abdomen, pelvic cavity effusion absorption in small quantities. Postoperative follow-up of 3 months, patients with normal defecation, no anus swollen content emergence, no bloody symptoms, anal region without discomfort, other parts not cause discomfort.

2.3 Discussion

Liver abscess is by pathogenic microorganisms [1] (bacteria, fungi) by the biliary system, portal vein and hepatic artery, adjacent to the organ or tissue infection lesions, by the wounds of the liver damage into liver cause infection [1]. The higher incidence of bacterial liver abscess in Asian countries, annual incidence of 12~18/10 ten thousand [2]. In this case, sputum culture gram positive bacteria and gram negative bacilli positive, consider for bacterial liver abscess. With fever is the most common clinical symptoms and chills are visible, abdominal pain, nausea and vomiting. Bacterial liver abscess can form a single or multiple pyogenic infection lesions, often complicated by sepsis often complicated with sepsis, severe cases can lead to septic shock and even death [3].

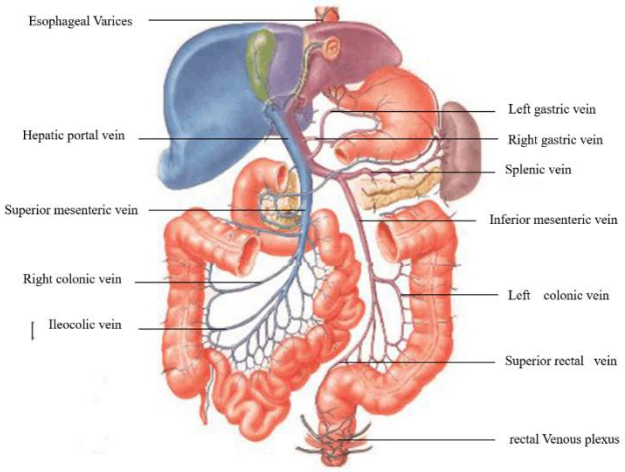

Figure 1: venous return diagram [5]

The patients postoperative bacterial liver abscess, consider for the following two reasons. One for postoperative ligation after falling off line, lead to wound exposure, local infection, another patients discharged from hospital after clean the wound dressing is not standard cause local infection, both are bacteria into the blood back into the portal vein caused liver abscess, namely transmission of Portal vein [4]. Anal hemorrhoids venous plexus to assemble on the rectum and rectal vein. rectum on venous plexus in the submucosal layer of the dentate line above, together into a small veins, through the rectal muscular fed on rectal vein, anus under the sphincter surrounding mesangial vein into the portal [5] vein. Liver abscess in our country the main pathogenic bacteria genera of klebsiella, Mr Bush's bacteria genera, staphylococcus aureus, e. coli, streptococcus and enterococcus [6]. Although this example in patients were not detected in blood culture related pathogenic bacteria, but germiculture positive sputum culture, therefore, taking into account the limitations of liver and adjacent organs infection. But because the patient has a history of anal region surgery, consider infected with e. coli as the main pathogenic bacteria, Bacterial liver abscess major pathogenic bacteria of pneumonia klebsiella bacteria, so the comprehensive consider using Imipenem [7] treatment effect is more ideal.

3. Case 2:

3.1 Clinical Data

Mr. Wang, male, 41 years old, other. "Anal mixture with pain for half a year" as the chief complaint of outpatient service in "Hemorrhoids " on March 30, 2024, 08:03. Patients in a year ago no significant incentives in the anal mixture with pain, the mass sample size about horsebean size, tingling, occasional bloody, no mucous purulent blood stool. Heal after our department outpatient service to topical drugs, symptom relief, still break out repeatedly. Today patients for further treatment, then today the patient dgain to see a doctor,

He was admitted to our department with Mixed hemorrhoids. Hospital disease see: anal lesions out, can't recover, anal pain, bloody occasionally, quantity is little, bright red color, can automatically stop. No anal belly discomfort, no anal I itch unwell. Defecate is normal, Once or twice daily, discharge

unobstructed, no mucous bloody stool and urine is normal, can eat, sleep. Recently no fever, cough and other symptoms. There was no significant change in body weight recently. Always good health. Deny that high blood pressure, heart disease and other medical history. Increase in blood sugar found more than half a year, did not make a diagnosis and give treatment. Deny history of infection such as tuberculosis, hepatitis. Denied to high blood pressure, diabetes, heart disease and other medical history, deny that history of infection, such as hepatitis, tuberculosis, denied that has a history of drug and food allergy. Deny operation history and history of trauma.

Physical examination on admission: vital signs: temperature: 36.5℃, pulse: 72 beats/min, respiratory rate: 20 beats/min, blood pressure: 117/81mmHg. Specialist examination (lithotomy position): visual examination: there was no deformity in the appearance of the anus, the protrusion of the anal margin was visible at 3, 5, 7, and 11 o'clock the color was dark red. Digital examination: there was no stenosis in the anus, the rectal ring was elastic, the mucous membrane was raised and soft at 3, 5, 7, and 11 o'clock on the internal anorectal line, the anal gland was tender. Positive at 6 o'clock, there was no blood staining at the finger ring. The four diagnostic methods of traditional Chinese medicine: red tongue, thin yellow coating, wiryand Slippery pulse. Auxiliary examination showed no obvious abnormalities in blood routine, renal function, electrolytes, blood lipids, six coagulation tests, and nine blood transfusion tests. Anorectal department (B ultrasound): no abnormality was found in perianal subcutaneous soft tissue and anal canal wall in the lumen. Electrocardiogram:1. Sinus rhythm; 2.T wave changes. Chest CT: No obvious abnormality was found. Admission diagnosis: TCM diagnosis: hemorrhoids (damp invasion of lower energizer). Western medicine. diagnosis: Mixed hemorrhoids

3.2 Treatment History

Combined with medical history, symptoms and preoperative imaging examination, preoperative diagnosis: traditional Chinese medicine diagnosis: hemorrhoids (damp- heat injection syndrome) and western medicine diagnosis: mixed hemorrhoids. On the same day, external stripping and internal ligation of mixed hemorrhoids were performed under combined spinal-epidural anesthesia.

The patient was placed in the lithotomy position.

(1) After satisfactory anesthesia, the lithotomy was placed in the bed. After routine disinfection, a sterile surgical sheet was laid, and a new dish Anerdian cotton ball was taken for anal disinfection three times.

(2) Expand the anus to accommodate 4 fingers in degrees. Mucosal elevation and congestion can be seen at the 3, 5, 7, and 11 o'clock anorectal line s in the anus.

(3) With curved tongs clamped haemorrhoids base, with 10 silk lines in its base seaming, a v-shaped incision at the bottom of the its external piles, stripping to anorectal line 0.5 cm, together with hemorrhoids part do ligation, eight parts ligation injection fluid about 2 ml, 1:1 xiaozhi spirit and cut off the ligation of two-thirds of the organization, stripping external hemorrhoid department command points of varicose veins, The excised tissue was sent to the disease examination. Mixed hemorrhoids were treated with the same method at 3.5 and 11 o'clock, and no obvious abnormality was found in the anal glands at 6 o'clock.

(4) Trim the skin edge, and ligation and electrocoagulation all bleeding points. After observing that there was no exudation, the oil gauze was bandaged under pressure, and the surgical instruments and gauze were counted accurately before returning to the ward. Submission of specimens for examination

(5) The blood loss was about 10ml, the vital signs were stable, and the anesthesia was satisfactory during the operation.

Postoperative diagnosis: Traditional Chinese medicine diagnosis: hemorrhoids hemorrhoids (damp- heat injection syndrome) and western medicine diagnosis: mixed hemorrhoids. In the day to Combined spinal-epidural anesthesia downlink Milligan-Morgan hemorrhodectomy.

(1) Intravenous drip of cefuroxime sodium was planned after operation, but the patient had a history of drinking within three days, so fosfomycin 4g every time, Once in 12 hours was selected to actively prevent infection; (2) After the operation, the patient was forbidden to eat and drink, so he was given intravenous nutrition support and treatment; (3) Oral naphthalene bupropion capsule for pain when necessary; Intravenous infusion of ketorolac tromethamine injection 30mg every time for pain relief (the two painkillers are not used at the same time); (4) Puji hemorrhoid suppository one sheet every time, twice a day, plug into the anus; (5) One package of hemorrhoids rinsing powder every time, three a day, fumigating and washing sitz bath; (6) Zhiyanling concentrate 15ml, three a day, take orally; (7) One pill of Hemorrhoid fistula Neixiao pill, twice daily, oral moistening intestine and defecation; (8) Acupoint application and traditional Chinese medicine package can relieve pain, relieve defecation and promote wound healing. Microwave and red light treatment can promote wound healing. (9) Chinese medicine drip into the rectum. Traditional Chinese medicine fumigation bath. Anorectal cryotherapy, improve local lymphatic reflux, relieve swelling and pain, Promote wound healing.

On the first postoperative day, the patient's liver function tests showed: alanine aminotransferase (Shan HR):141U/L, aspartate aminotransferase (Shan HR):61U/L, mitochondrial AST isoenzyme: 20U/L,Y-glutamyl transferase: 68U/L, total protein (Shan HR): 58.6 g/L, globulin: 15.7 g/L, white balls than: 2.73; Glycosylated hemoglobin: glycosylated hemoglobin:10.71%, fasting blood glucose: 8.6mmol/L, 2 hours after breakfast blood glucose: 8.8 mmol/L, before lunch blood glucose: 8.3 mmol/L, 2 hours after lunch blood glucose: 13 mmol/L, 2 hours before dinner blood glucose:9.2 mmol/L, Blood glucose was 10.0 mmol/L 2 hours after dinner and 10.0 mmol/L before bedtime. After consultation with the endocrinology department, additional diagnoses were made: type 2 diabetes mellitus and liver function impairment. For breakfast front door winter insulin injection (filling) 30 10 units 1, subcutaneous injection, dinner at the front door winter

insulin injection (filling) 30 8 units 1 subcutaneous injection at a time. The succession monitoring blood sugar, five times a day, and 3 and 2 hours after meals on an empty stomach before going to bed. Give the child a 0.9% sodium chloride injection * 250 m1 + magnesium isoglycyrrhizinate injections once a day 20 omg intravenous drip protect liver treatment. Specialist dressing was changed twice a day, Anerdian cotton ball disinfection was given, Jiuhua ointment was dripped in the rectum, external application of detumorizing ointment was applied, and sterile dressing was bandaged.

5 days after review liver result: alanine aminotransferase (HR) and shaanxi: 64 u/L, aspartate amino transferase (HR) and shaanxi: 24 u/L, Y-pancreatic acyl transfer run: 66 u/L. The patient was discharged on the 8th postoperative day. After discharge, keep the stool unobstructed and formed, do not squat for a long time, no sit for a long time, and no stand for a long time. Avoid spicy foods and stimulants; After continuing to use Chinese medicine fumigation and washing, dressing change. Check liver function regularly. Patients were instructed to eat a diabetic diet and measure their blood glucose regularly to prevent hypoglycemia. After one month on a regular basis in our review, wound recovered well. No obvious abnormality was found in liver function reexamination at 3 months after operation.

3.3 Discussion

This patient had liver injury after surgery, although the patient had no history of diabetes, but the patient's glycosylated hemoglobin was 10.71%, considering that the patient had diabetes in the past, so the patient's history of diabetes was considered. The blood glucose control during the treatment was not ideal, which increased the risk of postoperative infection, leading to postoperative wound infection. The infection of the veins on the dentate line can reflux through the portal vein and cause liver injury. Because of the timely diagnosis after operation, timely liver protective treatment should be given to avoid the development of liver abscess in the same case.

4. Summary

The above two cases, although the way of infection is different, but the route of infection is portal vein infection. Therefore, in the diagnosis and treatment of patients with mixed hemorrhoids surgery, although it is a contaminated wound, we should also pay attention to strict adherence to the principle of sterility, fully clean up the congestion and feces in the intestinal cavity and fully disinfect during surgery and dressing change. By perioperative blood glucose control standard should be fasting glucose control within 8 mmol/L, postprandial blood glucose control within 10mmol/L [8]. Postoperative management and rational use of antibiotics should be strengthened to reduce the probability of wound infection. For the elderly, a history of diabetes, and other basic diseases in patients with low immunity, etc, more should pay attention to prevent the happening [9].

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