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**Clinical Analysis of Abdominal Actinomycosis: 8 Cases**

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**Purpose:** Actinomycosis is still a relatively rare infection, characterized by multiple abscesses, draining sinuses and the appearance of sulfur granules, which are valuable in aiding the diagnosing the discharge of involved tissues. In most instances, the onset of an abdominal disease is preceded by inflammatory or a traumatic incident resulting in the perforation of the mucosa of the gastrointestinal tract. Intensive and prolonged antimicrobial therapy, and wide surgical excision of involved tissues are the two general principles of therapy.

**Methods:** We experienced 8 cases of abdominal actinomycosis after a laparotomy between March 1997 and February 2002.

**Results:** The results were as follows: 1) There was a 1:1 male to female ratio of abdominal actinomycosis, and a mean age of 47 years. 2) The clinical features were different for each involved organ, but, most of the clinical symptoms were nonspecific to suspect actinomycosis. 3) The frequently involved organs were mainly located lower abdomen, such as the appendix and cecum, sigmoid colon and small bowel. 4) In 60% of the patients, the predisposing factors were identifiable, these being: a previous abdominal operation, IUD and abdominal injury. 5) The preoperative diagnoses included: acute appendicitis, and periappendiceal and intra-abdominal abscesses. The pre-exploratory diagnoses were made by ultrasound and abdominal CT. 6) Explorations were performed in all patients, depending on their diagnosis, to afford the proper surgical treatment and correct diagnosis. After the operation, all the patients were treated with oral antibiotics for long period.

**Conclusion:** The authors conclude that pre-exploratory cytological or culture studies, with careful history taking, for low abdominal tumors or abscesses may increase the rate of correct diagnosis, as could proper explorations. (*J Korean Surg Soc* 2003;64:251-255)

**Key Word:** Abdominal actinomycosis

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 , 2) , 3) , 4)  
 , 5) , 6) , 7)  
 (Table 1).

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 51 47  
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**Table 1.** Abdominal actinomycosis: Case 8

Case	Sex	Age	Site	Predisposingfactor preop.	Diagnosis	Operation
1	F	55	Cecum	-	Periappendiceal abscess	Ileocecal resection
2	M	39	Appendix	Appendectomy	Actinomycosis	Abscess drainage
3	M	66	Cecum	-	Cecal diverticulitis	Ileocecal resection
4	M	62	Ascending colon	-	Intraabdominal mass	Rt. hemicolectomy
*5	F	34	Small bowel	Stab wound/IUD	Intraabdominal mass	Segmental resection of small bowel
6	F	38	Appendix	Appendectomy	Actinomycosis	Mass excision
7	F	39	Sigmoid colon	IUD	Actinomycosis	Segmental resection of sig. colon
8	M	44	Appendix	KTN	Periappendiceal abscess	Appendectomy

\*Fig. 1, 2 and 3.

**Table 2.** Age and sex distribution

	Male	Female	
~35	0	1	1
36~40	1	2	3
41~45	1	0	1
46~50	0	0	0
51~55	0	1	1
56~60	0	0	0
61~	2	0	2
Total	4	4	8

**Table 4.** Clinical signs

Signs	No.
Tenderness	6
Localized	6
Diffuse	2
Rebound tenderness	3
Palpable mas	5

**Table 3.** Clinical symptoms

Symptoms	No.
Abdominal pain	4
Localized	4
Diffuse	2
Diarrhea/constipation	1
Nausea/vomiting	2
Tarry stool	1
Palpable mass	4

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(Table 3).

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(Table 4).

3)

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(Table 5).

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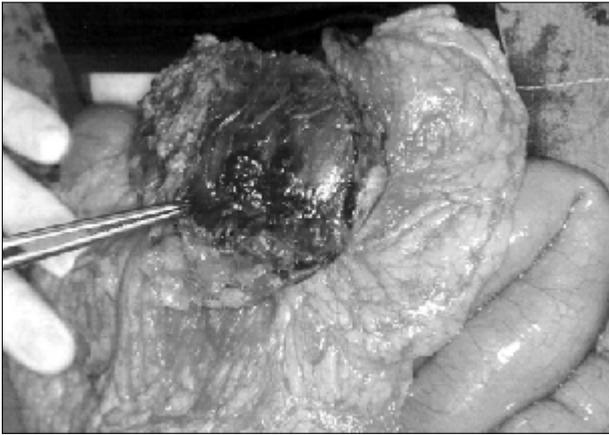
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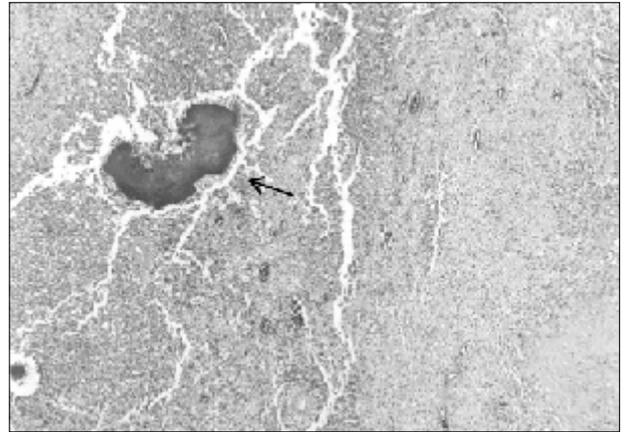
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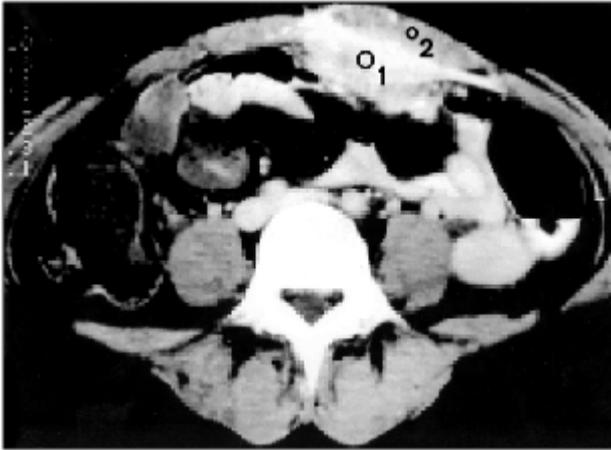
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**Fig. 1.** Abdominal Actinomycosis conjoined with small bowel (7×4 cm).



**Fig. 3.** Sulfur granule in microscopic finding (black arrow, H&E, ×100).



**Fig. 2.** Abdominal mass in abdominal CT.

**Table 5.** Actinomycosis site

Site	No.
Appendix	3
Cecum	2
Ascending colon	1
Sigmoid colon	1
Small bowel	1

5)

**Table 6.** Predisposing factor

Predisposing factor	No.
Appendectomy	2
IUD (stab wound)	2 (1)
Kidney transplantation	1
<b>Total/case</b>	<b>5/8</b>

**Table 7.** Preoperative diagnosis

Diagnosis	No.
Actinomycosis	3
Periappendiceal abscess	2
Intraabdominal mass	2
Cecal diverticulitis	1
<b>Total</b>	<b>8</b>

(Fig. 2)

(Table 7).

6)

7)

총 8예 모두 개복술을 통한 발병 부위 절제이나 배액술을 시행하고 이후 항생제 투여 방법으로 치료하였고 수술을 시행하지 않고 항생제만 투여한 경우는 없었다.



1876 Bollinger가

, 1878 Israel

*Actinomyces israeli*

, 1897 Ponflick Actinomycosis

.(1) 1940 Erikson

. 1943 Waksman Hericiga

가 .(2)

*Actinomyces israeli*, *A. bovis*, *A. eriksonii*, *A. naeslundii*, *Arachnia propionicus*가

*A. israeli* .(3)

(Fig. 3)

lμ

(interwined filament)

Gram Gram (filament)

.(4)

가

.(5)

.(6) , , sinus tract

.(7) Cope (8) (cervicofacial form, 56.8%), (abdominal form, 22.3%), (thoracic form, 15%), (other form, 5.9%; , , , , ) . Miller (9)

가

2

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2 , , , 가

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, Blastomycosis

Penicillin, Tetracycline, Erythromycin

Penicillin, Tetracycline, Erythromycin

