PELVIC ACTINOMYCOYSIS INFECTION

The rare chronic disease typically features a number of small, interlinked abscesses within the pelvis.

診断: 女性

相关诊断:
Vaginismus

关于盆腔Actinomycosis感染

盆腔Actinomycosis是罕见的，从慢性到急性细菌性感染，由 suppurrative和granulomatous炎症特征。该疾病由Actinomyces属细菌引起。在健康受试者中，Actinomyces是口腔上部、胃肠道和生殖道正常菌群的一部分。健康粘膜作为抗病屏障。创伤、免疫抑制和慢性炎性疾病的破坏是公认的促进因素。

盆腔Actinomycosis虽然罕见，但仅在女性中发生。它可能模拟下生殖道恶性肿瘤，这使得诊断困难。诊断盆腔Actinomycosis困难，感染被认作是手术或病理学研究的结果。

A. israelii是盆腔Actinomycosis最常见的原因。生殖道Actinomyces spp.的移位大大促进了由宫内避孕设备（IUCD）引起的感染发生的可能性。长期使用IUCD的盆腔区域可引起由子宫内感染的Actinomycotic感染（图1）。在IUD相关的Actinomycosis中，脓肿在生殖道中常见，与相邻结构（如小肠）的粘附和纤维化形成，促进瘘管形成，导致盆腔炎症。

在无菌部位的诊断性细菌学试验确认actinomycosis的诊断。然而，这些致病细菌的存在率高，因为预防抗生素治疗，抑制Actinomyces生长，伴随病态条件，或不适当的短期培养。由于Actinomyces的微氧耐受性（需要氧的生长）或 strict anaerobic character，厌氧处理（快速运输到实验室或在厌氧运输介质中处理）和适应性生长条件应用于初步隔离。临床标本应来自外科活检或脓液；拭子应避免。

最常用的治疗方法是抗生素。早期检测和治疗B-lactamase抗生素，可能需要更长的外科手术程序。长期抗生素治疗至少两个月，某些病例可能持续一年，应考虑清除感染。

它也必须治愈性伴侣。有时需要根治性手术或解决急性并发症。

相关疾病
- 卵巢癌
- 生殖道恶性肿瘤
Complications

- peritonitis
- infertility
- ectopic pregnancy
- tubo-ovarian abscesses
- chronic pelvic pain
- bowel obstruction

Risk factors

Pelvic actinomycosis is associated with long-term use of an intrauterine contraceptive device (IUCD). IUCDs have a traumatizing effect on endometrium, causing erosions that, in the presence of preexisting pelvic inflammatory disease or anaerobic infection, create a favorable environment for the development of actinomycoses. There is a clear relationship between the risk of colonization and the duration of IUCD use. There is no doubt that long-term use of an IUCD represents a risk factor for pelvic actinomycosis and potentially for secondary dissemination to a distant site such as in the abdominal wall. The infection rarely disseminates by either lymphatics or the hematogenous route.

Impact on fertility

Increased frequency of pelvic actinomycosis is associated with infertility and consequent increase in costs associated with uncontrolled long-term use of the IUD. Duration of symptoms is the major determinant of subsequent infertility.

The main reasons of infertility of pelvic actinomycosis infection can be pelvic and tubo-ovarian abscesses, that result in irreversible tubal and ovarian damage. Also, patients with pelvic abscesses have a higher risk for ectopic pregnancy. Pelvic abscess formation is a rare but recognised complication of oocyte retrieval during IVF program. Infection rates are low, <1% but the results can be devastating.

Laparoscopy should be considered to all patients with abscesses who desire future conception. Immediate laparoscopy (a surgical technique in which operations are performed far from their location through small incisions (usually 0.5–1.5 cm) elsewhere in the body) decreased infertility.

Prevention

Preventive measures are required to limit the occurrence of the disease. An intrauterine devices (IUDs) should be changed every 5 years in women, to limit the occurrence of pelvic actinomycosis.

Symptoms

Clinical symptoms are usually not specific and include a wide range of clinical presentation. Symptoms of actinomycosis may mimic symptoms of gynecological malignant tumors, or uterine myoma or adenomyosis, by presenting as a genital mass without fever. Fever is usually not observed, except if a complication such as peritonitis occurs.

The most common symptoms of pelvic actinomycosis infection include abdominal pain, constipation, vaginal discharge, body weight loss, abscess and pelvic inflammation. The duration of symptoms is usually 2 months at the time of diagnosis.

Therapies

Self therapy
Acupuncture is an effective complement to pharmacological therapy in the alleviation of pelvic actinomycosis infection. It has mild or no side effects; however, a minimum of 3 months of therapy is required to guarantee a beneficial outcome.

**Conventional medicine**

**Pharmacotherapy**

Actinomyces bacteria are generally sensitive to penicillin, which is frequently used to treat actinomycosis. In cases of penicillin allergy, doxycyclin is used. Sulfonamides such as sulfamethoxazole may be used as an alternative regimen at a total daily dosage of 2–4 grams. Response to therapy is slow and may take months.

Penicillin and tetracycline are both effective. Initial treatment should be parenteral penicillin G in high doses of 10–20 million units per day for two to four weeks and continued with oral penicillin V at a dose of 2–4 g/day.

**Surgical therapy**

Surgical treatment without antibiotic therapy is not always sufficient to achieve a cure of actinomycosis. When antibiotic therapy is combined with surgery, it is relatively simple to treat, and the cure rate is more than 90%.

**Assisted reproduction**

Pelvic actinomyces israelii presenting as pelvic abscesses may occur as a rare complication of assisted reproductive technology (ART). It has devastating effect on women who has already gone through the distressing procedure. But even if the procedure is successful, the rate of pregnancy loss is high.

As described above, colonization of the female genital tract by Actinomyces spp. is greatly promoted by the use of an intrauterine contraceptive devices (IUCD). Women who have used IUDs suffer more tubal infertility. Tubal factor infertility is female infertility caused by infections and many other factors which impede the descent of a fertilized or unfertilized ovum into the uterus through the Fallopian tubes and prevents a normal pregnancy and full term birth. Today, assisted reproductive technologies (ART) have an important place in the management of infertility that results from tubal disease. In vitro fertilization (IVF) will be the best option for many women with a tubal damage. IVF and ART generally start with stimulating the ovaries to increase egg production. After stimulation, the physician surgically extracts one or more eggs from the ovary, and unites them with sperm in a laboratory setting, with the intent of producing one or more embryos. Fertilization takes place outside the body, and the fertilized egg is reinserted into the woman’s reproductive tract, in a procedure called embryo transfer.

**Find more about related issues**

**Diagnoses**

**Vaginismus**
A physical or psychological condition in which woman cannot engage in any form of vaginal penetration. Learn more at: [www.fertilitypedia.org/therapy/diag/vaginismus](http://www.fertilitypedia.org/therapy/diag/vaginismus)

**Therapies**
Egg donation
Process by which a woman donates eggs for purposes of assisted reproduction or biomedical research.
Learn more at: www.Fertilitypedia.org/edu/therapies/egg-donation

ICSI
A micromanipulative fertilization technique in which a single sperm is injected directly into an egg.
Learn more at: www.Fertilitypedia.org/edu/therapies/icsi

Sperm donation
The procedure in which a man (sperm donor) provides his sperm for fertility treatment.
Learn more at: www.Fertilitypedia.org/edu/therapies/sperm-donation

Standard IVF
A process in which an egg is fertilised by sperm outside the body: in vitro. Own or donated gametes may be used.
Learn more at: www.Fertilitypedia.org/edu/therapies/standard-ivf

Gallery

Pic
Peritoneal effusion and heterogeneous pelvic mass surrounding an intrauterine device (A), with abscesses (B) corresponding with pelvic actinomycosis.

Sources

" Differentiating pelvic actinomycosis from advanced ovarian cancer: a report of two cases, management reflections and literature review [https://gynoncrp.biomedcentral.com/articles/10.1186/2053-6844-1-5]" — by Laios et al. licensed under CC BY 4.0

" Isolated Abdominal Wall Actinomycosis Associated with an Intrauterine Contraceptive Device: A Case Report and Review of the Relevant Literature [https://www.hindawi.com/journals/crm/2010/340109/]" — by Carkman et al. licensed under CC BY 3.0

" Actinomycosis: etiology, clinical features, diagnosis, treatment, and management [https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4094581/]" — by Valour et al. licensed under CC BY-NC 3.0

" Super Infection of An Ovarian Dermoid Cyst with Actinomycosis in An Infertile Woman [https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3850338/]" — by Salehpour and Sene licensed under CC BY 4.0

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“Tubo-Ovarian Abscess: Pathogenesis and Management” —by Osborne licensed under CC0 1.0

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“Acupuncture for chronic pelvic inflammatory disease: a qualitative study of patients’ insistence on treatment” —by Liang and Gong licensed under CC BY 2.0