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## A DISEASE CAUSED BY T. CARATEUM

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### ABSTRACT

A chronic infectious disease caused by *T. Carateum*. The disease is now restricted to the Philippines and some areas of pacific .The disease is essentially one of childhood, often beginning after the age of 10- 15 years. Transmission is non venereal, by direct contact with infectious lesions. After an incubation period of 7- 21 days, an initial papular lesions appears on the hands and legs, followed by a macula papular, erythematous rash( pintides ) lasting for years. A late stages characterised by depigmented, leukodermic patches which may be permanent. In the treatment of pinta, the antibiotic of choices is benzathine penicillin G which has replaced PAM. The dose for patient under 10 years is 0.6 megaunits, and for those 10 years and over 1.2 megaunits. The peak age prevalence for pinta is somewhat older than for yaws or endemic syphilis, with individuals aged 15 to 30 years. Diagnosis is usually clinical, but as with yaws and bejel, serological tests for syphilis, such as rapid plasma regain (RPR) and TPHA, will be positive, and the spirochetes can be seen on dark field microscopy of samples taken from the early papules. Like other endemic treponematoses, pinta is thought to be spread through direct lesion contact. An important difference between pinta and the other endemic treponematoses is that without treatment the lesions tend to persist. The disease can be treated with penicillin, tetracycline , azithromycin or chloramphenicol.

**Key words:** Pinta, lesions, Depigmentation, Hyper pigmented.

### INTRODUCTION

Pinta is the endemic treponematosis caused by a unique treponemal species, *T. carateum*. Unlike yaws and endemic syphilis, which have a global distribution, pinta is a disease limited to the New World. A chronic infectious disease caused by *T. Carateum*. The disease is now restricted to the Philippines and some areas of pacific .The disease is essentially one of childhood, often beginning after the age of 10- 15 years. The disease has been described in numerous South American and Caribbean countries, including Cuba. The word *pinta* is taken from the Spanish verb to paint and is indicative of the various colours seen as the skin lesions mature: red, white, violet, blue, brown, or black.

At present, the disease is quite rare; recently, however, substantial numbers of cases, including a case series of more than 200 patients, have been described in rural Brazil. The peak age prevalence for pinta is somewhat older than for yaws or endemic syphilis, with individuals aged 15 to 30 years. Like other endemic treponematoses, pinta is thought to be spread through direct lesion contact. An important difference between pinta and the other endemic treponematoses is that without treatment the lesions tend to persist. The classic initial lesion of pinta is a papule or erythematous epithelial plaque. These lesions tend to occur on parts of the body that are not typically clothed, most often the leg, foot, forearm, or back of the hands. Typically, these lesions then slowly enlarge through local extension to form hyperkeratotic pigmented lesions. The lesions of pinta are accompanied by regional lymphadenopathy. In the interval of 3 to 9 months after infection, disseminated lesions may occur distal to the initial lesion and also slowly enlarge. Over time, the lesions of pinta become pigmented, initially becoming somewhat hyper

pigmented and taking on a darker colour described as slate blue. Late pinta is characterized further by additional pigmentary cutaneous changes; lesions may include dyschromic treponeme-containing lesions and achromic treponeme-free lesions. The depigmentation process of pinta occurs at different rates in the same lesion, giving the lesions a somewhat mottled appearance. No other disability or late complications of pinta have currently been described.

Pinta is transmitted through contact with broken skin, and the primary lesion occurs mainly on the lower leg, dorsum of the foot, forearm, or back of the hands. One to 8 weeks after inoculation, a tiny erythematous papule or cluster of papules appears and then enlarges and coalesces. An irregular and heaped border surrounds the erythematous, scaly central lesion. Dissemination from the primary site results in secondary skin lesions known as *pintids*, which develop 3 to 9 months after the initial inoculation and before the primary lesion has healed completely. Secondary lesions are indistinguishable clinically and histologically from the primary lesion.

Primary and secondary lesions are highly contagious and heal slowly. Three months to many years later, tertiary disease manifests as achromic, atrophic lesions. These lesions are not considered infectious.

### INCUBATION PERIOD

The incubation period is from 7- 21 days

### SIGNS AND SYMPTOMS

After an incubation period of 7- 21 days, an initial papular lesions appears on the hands and legs, followed by a macula papular, erythematous rash ( *pintides* ) lasting for years. A late stages characterised by depigmented, leukodermic patches which may be permanent.

Pinta, the least severe of treponemal infections being limited to the skin, is thought to be transmitted by skin-to-skin contact (similar to bejel and yaws), and after an incubation period of two to three weeks, produces a raised papule, which enlarges and becomes hyperkeratotic (scaly/flaky). Lesions are usually present in the exposed surface of arms and legs. Local lymph nodes might be enlarged. Three to nine months later, further thickened and flat lesions (*pintids*) appear all over the body. These generally resolve, but a proportion of people with pinta will go on to develop late-stage disease, characterised by widespread pigmentary change with a mixture of hyper pigmentation and depigmentation which can be disfiguring.

Pinta affects only the skin. It begins as flat, itchy, reddened areas on the hands, feet, legs, arms, face, or neck. These areas enlarge and thicken. After several months, thick, flat patches develop all over the body. They tend to develop where bones are close to skin, for example, on the elbow.





Later, the patches lose their colour or turn gray-blue. Without treatment, these patches usually do not go away.

## CAUSES

Caused by playing with dead animals, mainly ones from near by gutters. Example, frogs, crabs, lizards, etc.

## DIAGNOSIS

Diagnosis is usually clinical, but as with yaws and bejel, serological tests for syphilis, such as rapid plasma regain (RPR) and TPHA, will be positive, and the spirochetes can be seen on dark field microscopy of samples taken from the early papules.

## TREATMENT

The disease can be treated with penicillin, tetracycline (not to be used in pregnant women), azithromycin or chloramphenicol, and can be prevented through contact tracing by public health officials. A single intramuscular injection of long-acting penicillin is effective against endemic treponematoses including pinta, yaws, and bejel

## REFERENCES

1. Bennett JC, Plum F, eds. Cecil Textbook of Medicine. 20th ed. Philadelphia, PA: W.B. Saunders Co; 1996:1714.
2. Fauci AS, et al., eds. Harrison's Principles of Internal Medicine, 14th Ed. New York, NY: McGraw-Hill, Inc; 1998:1035-6.
3. Mandell GL, et al., eds. Mandell, Douglas and Bennett's Principles and Practice of Infectious Diseases. 4th ed. New York, NY: Churchill Livingstone Inc; 1995:2135-6.
4. Champion RH, et al., eds. Textbook of Dermatology. 5th ed. Cambridge, MA: Blackwell Scientific Publications; 1992:1121-5.

## JOURNAL ARTICLES

5. Antal GM, Lukehart SA, Meheus AZ. The endemic treponematoses. Microbes Infect. 2002;4:83-94.

6. Koff AB, Rosen T. Nonvenereal treponematoses: yaws, endemic syphilis, and pinta. *J Amer Acad Dermatol.* 1993;29:519-35.
7. Meheus A, Antal GM. The endemic treponematoses: not yet eradicated. *World Health Stat Q.* 1992;45:228-37.
8. Antal GM, Causse G. The control of endemic treponematoses. *Rev Infect Dis.* 1985;7:S220-6.

