Journal of Infectious Diseases & Preventive Medicine

ISSN: 2329-8731

Rapose, J Anc Dis Prev Rem 2013, 1:1
DOI: 10.4172/2329-8731.1000102

Case Report Open Access

Yaws and Pinta - The Pain is Gone but the Memories Remain

Alwyn Rapose*

Consultant Infectious Diseases, Reliant Medical Group and Assistant Professor of Clinical Medicine, University of Massachusetts, Worcester, USA

Abstract

An 84 year old lady was referred for an Infectious Diseases (ID) consultation when she was detected positive for the Rapid Plasma Reagin (RPR) test. She denied history of any genital sore or other sexually transmitted infection (STI) in the past and could not understand how she could have contracted an STI. When she was offered treatment with weekly injections of penicillin, she informed the consultant that she remembered receiving weekly penicillin injections when she was 8 or 10 years old. Detailed inquiry led to a probable diagnosis of non-venereal treponemal diseases yaws or pinta.

Case Presentation

An 84 year old lady was referred for an Infectious Diseases consultation in January 2013 when she was detected positive for the RPR test. In October 2012 she had undergone cataract surgery of her right eye, followed by placement of a 19.5D diopter SN60WF lens. Unfortunately three weeks after the surgery she developed redness and increased tearing along with sensations of irritation, floaters and pain in the eye. Evaluation by slit lamp revealed 3+ cells, 3+ flare and an intact intraocular lens. She was diagnosed with anterior uveitis. She was initiated on therapy with cyclopentolate and prednisolone eye drops. A month later when her eye was no better laboratory tests were ordered for antinuclear antibody, antineutrophil cytoplasmic antibody, rheumatod factor, angiotensin converting enzyme assay and RPR. The RPR test was positive in a titer of 1:8, with confirmatory fluorescent treponema antibody test also positive. All the other tests came back negative. Hence she was referred to ID for further management. When she presented to the ID consultant, she was still experiencing excess tearing in both eyes, but the redness and irritation in her right eye had resolved. Her past history was significant for an uncomplicated cataract surgery of her left eye three years back, hyperthyroidism and hypertension. She was a non-smoker, a retired certified nurse assistant, living with her husband of more than fifty years. She had never conceived a child and had not sought an evaluation for infertility. Her eye examination was significant for bilateral arcus sinelis and the glint of artificial lens in both eyes. There was no redness, discharge or photophobia. There were no areas of alopecia on the scalp, no heart murmur. There were no lesions on the oral mucosa and no acute skin rash. Her palms and soles were normal. She denied any genital lesions or discharge and declined examination of the genital area. She had no enlarged lymph nodes. Based on these clinical findings and a positive RPR test, she was offered therapy with three injections of benzathine penicillin one week apart for a presumptive diagnosis of latent syphilis. As she was being informed of the side effect of pain at the site of the penicillin injection, the patient informed the consultant that she remembered receiving six penicillin injections one week apart when she was a young girl. She was quite sure it was penicillin because the injections were very painful. Further inquiry into the details of her illness and treatment revealed that when she was eight or ten years of age, while she was living in Jamaica, she had developed white lesions on the skin of her trunk and extremities. These were non-tender. These were no sores or lumps. She did not develop any lesions in her mouth. She remembered that other children in her school had developed raised skin lesions and some of them had developed sores. They were all treated at the same time with weekly injections of penicillin and she remembers waiting in line every Thursday to be treated by the local heath board. The white lesions on her skin subsided completely without any recurrence. Based on this detailed history, it was concluded that the patient had been previously infected with one of the non-venereal treponemal diseases yaws or pinta. Since her RPR was still positive with a titre of 1:8, she was offered and she accepted 3 doses of benzathine penicillin. Not unexpectedly the titre did not change significantly and remained positive at 1:4 even after completing the course.

Discussion

Yaws – caused by *Treponema pallidum pertenue* and pinta caused by *Treponema pallidum carateum* are non-venereal treponemal diseases. In other words, unlike syphilis which is sexually transmitted, yaws and pinta are transmitted by skin-to-skin contact. In the early 20th century, yaws was common in very rural and remote tropical regions of Africa, South America, South-East Asia and the South Pacific. Pinta was endemic only in Central and South America [1]. Infection was seen predominantly in children who played together in scant clothing secondary to poverty and the hot and humid climate in these areas. However a global eradication campaign successfully reduced the prevalence of these diseases from around 150 million cases around the 1950s to less than 3 million cases by the 1960s. Unfortunately there has been a resurgence of yaws in some very poor countries [2] and it remains endemic in Oceania especially Papua New Ginea (PNG), Vanuatu and the Solomon Islands [3,4]. Yaws usually manifests in the form of raised skin lesions that ulcerate and the person often develops secondary lesions in adjacent areas. However "pintoid" yaws (flat skin lesions of yaws) has been described in the Pacific regions [1]. The skin lesions are not diagnostic and many other bacterial and parasitic infections seen in these countries may mimic lesions of yaws [5]. Untreated disease affects cartilage and bones causing considerable morbidity. Pinta on the other hand manifests as flat light-red patches that subside leaving behind areas of hypo-pigmentation. If treated early, these hypo-pigmented patches may resolve completely [1]. There is very little in recent literature about pinta and it has been postulated that pinta was the first treponematosis to arise, but it has since been replaced by the others [6]. Serological tests help to confirm the diagnosis of yaws

***Corresponding author:** Alwyn Rapose, Consultant Infectious Diseases, Reliant Medical Group and Assistant Professor of Clinical Medicine, University of Massachusetts, Worcester, USA, E-mail: Alwyn.rapose@reliantmedicalgroup.org

Received April 08, 2013; **Accepted** May 10, 2013; **Published** May 13, 2013

Citation: Rapose A (2013) Yaws and Pinta - The Pain is Gone but the Memories Remain. J Anc Dis Prev Rem 1: 102. doi:10.4172/2329-8731.1000102

and pinta, but cannot distinguish these diseases from one another or from the venereal disease syphilis [4]. Yaws and pinta are both treated with a single dose of benzathine penicillin. Single dose azithromycin was reported to be non-inferior in a recent study from PNG [7]. This may increase opportunities to eradicate the disease in very remote areas with little access to persons trained to deliver medication by injections.

Our patient developed white patches on her skin when she was a young girl living in Jamaica. She was treated with penicillin which resulted in complete resolution of her symptoms without any recurrence. She was quite sure she did not develop any raised or ulcerated lesions. Although the patient did not develop the raised lesions of classical yaws, she probably was infected with *Treponema pallidum pertenue***,** but this will be impossible to know for sure. Her RPR test has remained positive all these years and may be a clue as to why she was treated with six doses of penicillin. One can postulate that she may have had a persistent positive RPR test even at that time and an attempt was made to treat till the test turned negative.

Conclusions

This case serves to highlight the fact that even today, non-venereal treponemal diseases can be responsible for false positive tests for syphilis. These diseases are cured with penicillin and though the pain of the injections has subsided, the memories of the disease remain in those who previously lived in endemic areas.

References

1. Rook, Wilinson, Ebling's Textbook of Dermatology. (5thedn), 26: 1121-1126.
2. Asiedu K, Amouzou B, Dhariwal A, Karam M, Lobo D, et al. (2008) Yaws eradication: past efforts and future perspectives. Bull World Health Organ 86: 499-499A.
3. Kline K, McCarthy JS, Pearson M, Loukas A, Hotez PJ (2013) Neglected tropical diseases of Oceania: review of their prevalence, distribution, and opportunities for control. PLoS Negl Trop Dis 7: e1755.
4. Capuano C, Ozaki M (2011) Yaws in the Western pacific region: a review of the literature. J Trop Med 2011: 642832.
5. Mitjà O, Hays R, Lelngei F, Laban N, Ipai A, et al. (2011) Challenges in recognition and diagnosis of yaws in children in Papua New Guinea. Am J Trop Med Hyg 85: 113-116.
6. Willcox R, Willcox J. Venereological Medicine. Oxford University Press. 8: 151-153.
7. Mitjà O, Hays R, Ipai A, Penias M, Paru R, et al. (2012) Single-dose azithromycin versus benzathine benzylpenicillin for treatment of yaws in children in Papua New Guinea: an open-label, non-inferiority, randomised trial. Lancet 379: 342-347.