Ocular syphilis in spouses: diagnosis, treatment and medical confidentiality

Sífilis ocular em cônjuges: diagnóstico, tratamento e sigilo médico

Heloise Corso[1], Mario Alberto Corso[2], Ricardo Alexandre Stock[3], Elcio Luiz Bonamigo[4]

RESUMO

O objetivo do presente artigo é relatar dois casos de neurosífilis e uveíte diagnosticados por oftalmologista em casal imunocompetente. Além de relatar os casos, os autores discutem questões éticas da comunicação do diagnóstico aos parceiros dos pacientes.

UNITERMOS: Sífilis, Uveíte, Etiologia, Diagnóstico, Ética.

ABSTRACT

The aim of this paper is to report two cases of neurosyphilis and uveitis diagnosed by an ophthalmologist in an immunocompetent couple. In addition to reporting cases the authors discuss ethical issues of communication of diagnosis to partners of patients.

KEYWORD: *Syphilis, Uveitis, Etiology, Diagnosis, Ethics.*

INTRODUCTION

Syphilis is a chronic infectious disease caused by the spirochete bacterium *Treponema pallidum*. According to the World Health Organization, the current incidence of syphilis is estimated as 12 million new cases per year (1). In Brazil, syphilis accounted for 2,596 hospital admissions from 2011 to June 2013, 52 of which occurred in the state of Santa Catarina (SC) (2).

Ocular syphilis is uncommon, being more frequent at the second or third stage of the disease; iridocyclitis occurs in 4% of patients. Diagnosis is difficult due to the lack of pathognomonic signs and the heterogeneity of the clinical presentation. Currently, ocular syphilis represents 2% of uveitis cases, being most frequent in individuals infected by the human immunodeficiency virus (HIV) (3). The cases reported in the present article correspond to a non-HIV-infected married couple with syphilitic uveitis and neurosyphilis. The recommendations provided in the Code of Medical Ethics were observed with respect to the breach of confidentiality between the spouses.

CASE REPORTS

Case 1: MC, 57 years old, female, white, from Xanxerê/SC, Brazil, married; she sought assistance for a gritty sensation in both eyes (BEs). Past history: the patient said she had begun treatment for conjunctivitis a few days earlier without any improvement. Ophthalmologic examination: the visual acuity in the right eye (RE) was 20/30 and in the left eye (LE) was 20/25; the intraocular pressure was 14 mmHg in BEs. Biomicroscopy revealed bilateral anterior uveitis; vascular tufts on the pupillary margin, which were more intense in the RE (Figure 1); conjunctival hyperemia; localized posterior synechiae in BEs; and anterior chamber reactions of 3+/4+ in the RE and 2+/4+ in the LE. Ophthalmoscopy revealed a blurred papillary margin in the RE (grade II papilledema) and discrete alteration of sharp-

[1] Acadêmica de Medicina.
[2] Especialista em Oftalmologia. Médico Oftalmologista em Xanxerê-SC.
[3] Especialista em oftalmologia. Médico oftalmologista em Joaçaba-SC e Professor de Oftalmologia da Universidade do Oeste de Santa Catarina (UNOESC).
[4] Doutor. Médico oftalmologista. Professor de Oftalmologia e Bioética.

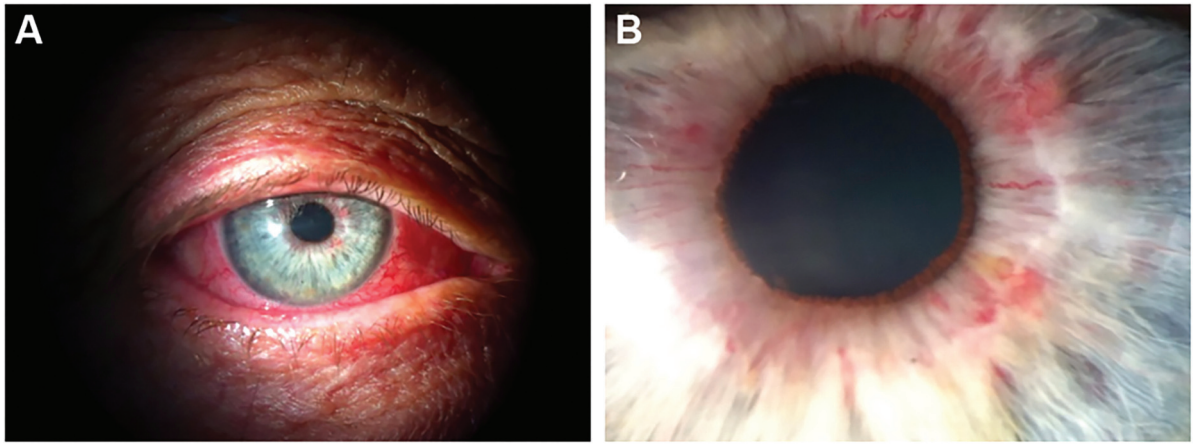


Figure 1 – Syphilitic roseola in the RE iris.

ness in the LE (grade I papilledema) (Figure 2). Clinical examination detected skin lesions with raised erythematous borders and clearer-center, well-defined borders with a mapped appearance and variable size on the left shoulder (Figure 3), as well as aphthous lesions on the lower and right lateral surfaces of the tongue (Figure 4).

Topical treatment was initiated with prednisone and cycloplegic eye drops, together with investigation of the etiology of anterior uveitis, for which purpose the following tests were requested: chest radiograph, antinuclear factor (ANF), FTA-Abs, VDRL, PPD for tuberculosis, rheumatoid factor (RF), LE cells, erythrocyte sedimentation rate (ESR) and anti-HIV antibody.

The VDRL result was abnormal (1/32), thus indicative of syphilitic anterior uveitis. FTA-Abs was not performed. The indicated treatment included procaine penicillin (2.4 million units per day for 15 days) and probenecid (2 g/day per the oral route). The patient was referred to an outpatient infectious disease service where lumbar puncture was performed; cerebrospinal fluid (CSF) analysis showed a positive VDRL and increased protein concentration. On those grounds, a treatment regimen for tertiary syphilis was begun, including crystalline penicillin G (2.4 million units per day for 10 days) followed by ceftriaxone (2 g/day for two days), both per the intravenous route. The systemic and ocular lesions improved during the treatment, but regression of papilledema only occurred after one month. The blood VDRL titer decreased to 1/16 in two months and to 1/4 over the course of the following months, becoming negative within 11 months. The patient was advised to request her husband to undergo an ophthalmologic examination (Case 2).

Case 2: JC, male, 58 years old, white, from Xanxerê/SC, married, professional driver; he sought assistance on medical advice after his wife was diagnosed with syphilitic uveitis. On ophthalmologic examination, he exhibited anterior chamber reaction of 2+/4+ in the RE, no synechiae, mild vitreous turbidity, and mild retinal edema. There were no significant changes in the LE. Treatment was begun with prednisone and cycloplegic eye drops, and the patient was referred to an infectious disease doctor. The VDRL titer was 1/32; CSF analysis revealed an increased protein concentration and a positive VDRL, which were indicative of syphilitic uveitis and neurosyphilis. Regression of the uveitis was detected one week after the onset of systemic treatment for neurosyphilis; the blood VDRL titer decreased to 1/2 within two months and became negative within nine months. The topical medication was gradually tapered and ultimately discontinued.

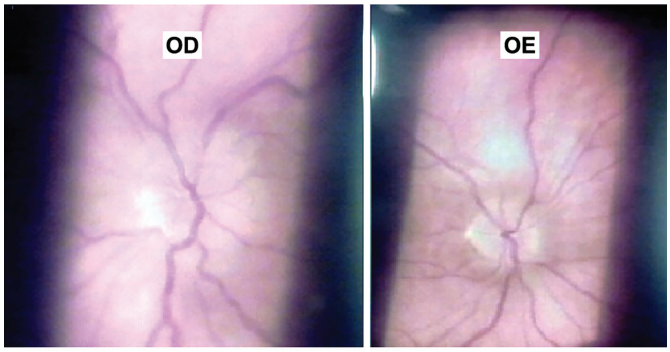


Figure 2 – RE: grade II papilledema. LE: grade I papilledema.

DISCUSSION

The rate of syphilis among Brazilian pregnant women was 5.0 cases per 1,000 live births in 2011, with congenital syphilis diagnosed in 3.3 cases per 1,000 live births (4). In absolute numbers, 9,374 cases of congenital syphilis were diagnosed in Brazil, 95 of which were in SC (5). These findings are characteristic of an endemic disease with the possible occurrence of syphilitic uveitis.



Figure 3 – Skin lesions on the left shoulder.



Figure 4 – Aphthous lesions on the lingual mucosa.

First described by Ygersheimer in 1918, ocular syphilis usually occurs in the second or third stage of the disease (6,7). The occurrence of syphilitic roseola in the iris is classically considered to represent the first manifestation of ocular syphilis and usually occurs before the onset of the disease's second stage. The lesions last only two or three days and are asymptomatic, for which reason they usually pass undetected (3). Case 1 exhibited concomitant syphilitic roseola and the characteristic mucocutaneous lesions of secondary syphilis.

Syphilis can affect any structure in the eye (8), with iridocyclitis being the most common manifestation (9), present in 4% of secondary syphilis cases, and bilateral in 50% of the patients. In most cases, iritis is associated with the roseola and first progresses into local papules, followed by large yellowish nodules. Further manifestations include vitreous turbidity and diffuse chorioretinitis, with optic nerve inflammation as one of the most relevant manifestation due to its frequency and potential severity, although isolated optic papillitis is rare (10). Both cases reported here exhibited iridocyclitis, papillary abnormalities, and pathological findings in the CSF, which indicated neuro-ophthalmologic involvement.

Syphilis used to represent approximately 17% of the cases of granulomatous uveitis at the Wilmer Eye Institute, Baltimore, MD, USA (5). The current estimates vary from 1-2% to 0.3-10.6% of cases, according to the endemic situation proper to each country. In Brazil, the incidence of uveitis is 14 to 28/100,000 inhabitants, 1.1% of which are due to syphilis; this percentage varies among the various Brazilian states (11).

The diagnosis of syphilitic uveitis requires non-treponemal (VDRL) and treponemal (FTA-Abs) tests; however, the latter was not performed by the patients due to its high cost. Following treatment, the VDRL titers decrease to eventually become negative, whereas FTA-Abs remains positive for life (12). In both cases reported here, the VDRL titers exhibited gradual reduction during the treatment.

Once a diagnosis of syphilitic uveitis is confirmed, systemic treatment for syphilis should be initiated according to the disease stage and the CSF analysis results (13). CSF analysis is performed to confirm or rule out involvement of the central nervous system (CNS), particularly in HIV-infected individuals, in whom ocular affection is most common (8,14). Cases with retinitis or optic nerve affection are treated as neurosyphilis because those structures are considered to be extensions of the CNS (7).

Regarding treatment, in the absence of CSF abnormalities, the weekly use of 2.4 million units penicillin G benzathine per the intramuscular route for three weeks is recommended; in cases with CSF abnormalities, treatment is performed with two to four million units crystalline penicillin G every four hours per the intravenous route for 10 to 15 days, followed by 2.4 million units penicillin G benzathine per week per the intramuscular route for three weeks (13,14). Both cases reported here exhibited CSF abnormalities and were treated as cases of neurosyphilis.

Whenever syphilis is diagnosed, the patient's partner should be contacted because it is a sexually transmitted disease. Were the patient to refuse, his or her doctor is required to contact the partner, according to the medical ethics. The breach of confidentiality is justified due to the following reasons: high odds of severe physical harm in an identifiable individual (non-maleficence); actual benefit of intervention (beneficence); last resource after persuasion was attempted (autonomy); and the prospect of becoming a generalizable procedure (justice) (15). In the present case, following the doctor's advice, the female patient communicated the diagnosis to her husband (Case 2).

FINAL COMMENTS

In conclusion, the treatment of a patient with uveitis should be oriented by the stage of disease, and the patient's partner, who might potentially be infected or become infected, should be identified. In the present case, the breach of confidentiality was justified. With respect to prevention, it is noteworthy that the male patient was a professional driver, confirming that the necessity of preventive campaigns targeting the professions most exposed to transmissible diseases should be emphasized (16).

REFERENCES

1. Barros AM, Cunha AP, Lisboa C, Sa MJ, Resende C. Neurossífilis: Revisão clínica e laboratorial [Neurosyphilis: clinical and laboratory review]. Arquivos de Medicina 2005; 19(3):121-8.
2. DATASUS [Internet]. Morbidade hospitalar da sífilis adquirida [Hospital morbidity of acquired syphilis]. Brasília (DF): Ministério da saúde: 2011 - Jun/2013 [accessed Fev 27 2014]. Available at: www.datasus.gov.br.
3. Oliveira AA, Oréfice F. Sífilis. In: Oréfice F, Belfort RJ. Uveítes [Uveitis]. Editora Roca; 1987. p. 273-4.
4. DATASUS [Internet]. Incidência de sífilis congênita [Incidence of congenital syphilis] [accessed Jan 28 2014]. Brasília (DF): Ministério da saúde: 2010. Available at: http://tabnet.datasus.gov.br/cgi/tabcgi.exe?idb2011/d0111.def
5. Brasil. Ministério da Saúde. Boletim epidemiológico sífilis 2012 [Epidemiological bulletin syphilis 2012] [accessed Jan 27 2014]. Available at: http://bvsms.saude.gov.br/bvs/periodicos/boletim_epidem_sifilis_2012.pdf
6. Piñon-Mosquera R, Jiménez-Benito J, Olea-Cascón J. Panuveitis bilateral sifilítica: a propósito de un caso [Bilateral syphilitic panuveitis: in regard to one case]. Arch Soc Esp Oftalmol. 2009;84(2):101-4.
7. Gauthier A, Graffe A, Beucher AB, Pajot O, Milea D, Lavigne C. Syphilis oculaire: à propos de deux cas [Ocular syphilis: in regard to two cases]. Rev Med Interne. 2011; 32:758-61.
8. Mandelcorn ED. Infectious causes of posterior uveitis. Can J Ophthalmol. 2013; 48(1):31-9.
9. Hong MC, Sheu SJ, Wu TT, Chuang CT. Ocular uveitis in the initial presentation of syphilis. J Chin Med Assoc. 2007; 70(7):274-80.
10. Tieulie N, Blanchouin E, Queyrel V, Demonchy E, Schneider-Lise B, Fuzibet JG, Cassoux N. Trente ans de mariage: ça se fête! [Thirty years of marriage: this must be celebrated!] Rev Med Interne. 2009; 30(10):896-9.
11. Gouveia E B, Yamamoto J H, Abdalla M, Hirata C E, Kubo P, Olivalves E. Causas das uveítes em serviço terciário em São Paulo, Brasil [Causes of uveitis in a tertiary healthcare service in São Paulo, Brazil]. Arq. Bras. Oftalmol. 2004; 67(1): 134-45.
12. Stehling A, Oréfice F. Sífilis. In: Oréfice F. Uveíte clínica e cirúrgica [Clinical and surgical uveitis]. Rio de Janeiro: Cultura Médica; 2000. p. 377-404.
13. Conselho Brasileiro de Oftalmologia [homepage na internet]. Como eu trato: Uveíte por sífilis [How do I treat: syphilitic uveitis] [accessed Mar 28 2014]. Available at: http://www.cbo.com.br/cbo/sociedades/uveites/artigos/cmtrato5.htm
14. Barros AM, Cunha AP, Lisboa C, Sa MJ, Resende C. Neurossífilis: revisão clínica e laboratorial [Neurosyphilis: clinical and laboratory review]. Arquivos de Medicina. 2005; 19(2):121-129.
15. Junkerman C; Schiedermayer D. Practical Ethics for resident physicians; a short reference manual. Wisconsin; MCW, 1993.
16. Teles AS, Matos MA, Caetano KAA, Costa LA, França DDS, Pessoni GC et al. Comportamentos de risco para doenças sexualmente transmissíveis em caminhoneiros no Brasil [Risk behaviors for sexually transmitted diseases in Brazilian truck drivers]. Rev Panam Salud Publica. 2008; 24(1):25-30.

✉ Endereço para correspondência
Elcio Luiz Bonamigo
Rua Francisco Lindner, 310
89.600-000 – Joaçaba, SC – Brasil
☎ (49) 3522-0717
💻 elcio.bonamigo@unoesc.edu.br
Recebido: 11/10/2014 – Aprovado: 1/12/2014