Universal Screening for Sexually Transmitted Infections in Pregnancy: An Urgent Need in Portugal

Rastreio Universal de Infeções Sexualmente Transmissíveis na Gravidez: Uma Necessidade Urgente em Portugal

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Dear Editor,

In recent years, Portugal has witnessed a significant rise in the incidence of sexually transmitted infections (STI).[1,2] This poses an important public health problem and calls for reflection on current screening and prevention strategies. *Chlamydia trachomatis* (CT) and *Neisseria gonorrhoeae* (NG) are currently the most frequent and curable bacterial STI, with considerable impact on maternal and neonatal health.[1]

In relation to this topic, we present three illustrative cases of neonatal complications resulting from untreated maternal STI, summarized in Table 1: a newborn with CT pneumonia following untreated neonatal conjunctivitis; an infant with congenital syphilis presenting with sepsis-like symptoms, whose mother had presented with vulvar ulcers that were not fully addressed[3]; and a newborn with bilateral purulent conjunctivitis caused by NG, whose father had

Table 1 – Cases of sexually transmitted infections in newborns and small infant in the Pediatric unit

	Case 1	Case 2	Case 3
Maternal age	19 y/o	30 y/o	23 y/o
Maternal history	CT infection at 20 weeks of GA (treated with azithromycin) - with confirmed test of cure Partner screening not performed	Vulvar ulcers at 38 weeks GA - tested for herpes simplex; elective C-section	Foul-smelling discharge during pregnancy - not tested, treated with topical antifungal Father: NG urethritis treated, lost to follow-up
Prenatal surveillance	Followed pregnancy with negative HIV and VDRL screening (1st and 3rd trimesters)		
Age, sex	23 days, male	2 months, male	2 days, female
Personal history	Conjunctivitis during the first week of life (treated with topical antibiotic)	Previously healthy	Previously healthy
Reason for hospitalization	Acute bronchiolitis / difficulty breathing	Sepsis	Severe bilateral purulent ocular exudate
Laboratory	Haemoglobin 13.7 g/dL, leukocyte 12.46x10^9/L, lymphocyte 2.88x10^9/L, monocyte 2.55x10^9/L, platelet count 249x10^9/L, AST/ALT 55/47 U/L, CRP 13.1 mg/L Positive PCR for CT in respiratory secretions	Haemoglobin 7.6 g/dL, MCV 82.1 fL, MCH 25.2 pg, RDW 19.8%, reticulocytes 3.59%, leukocyte 22.00×10^9/L, monocyte 5.50×10^9/L, lymphocyte 8.80x10^9/L, platelet count 104×10^9/L, AST/ALT 259/68 U/L, total bilirubin 1.3 mg/dL, LDH 312 U/L, CRP 263 mg/L Positive VDRL (1/4) and Ac anti-treponema IgM and TPHA	Haemoglobin 9.4 g/dL, leukocyte 24.51×10^9/L, lymphocyte 6.66×10^9/L, monocyte 2.13×10^9/L, platelet count 437×10^9/L, AST/ALT 30/15 U/L, CRP 153.7 mg/L Positive PCR and culture for NG in conjunctival exudate
Maternal screening (after children diagnosis)	Positive PCR for CT in urine	VDRL 1/8; TPHA and Ac anti-Treponema pallidum IgM positive	Positive PCR for NG in urine
Diagnosis	CT pneumonia	Congenital syphilis	Gonococcal conjunctivitis
Treatment	Oral azithromycin 20 mg/kg once daily for 3 days	IV crystalline penicillin G 200 000 IU/kg/day, every 6 hours for 10 days	IV ceftriaxone 50 mg/kg, single dose
Follow-up	- Negative STI screening for other infections - Treatment of both parents	- Negative STI screening for other infections - Treatment of the mother - Unknown partner	- Negative STI screening for other infections - NG screening in both parents (mother: positive -treated, father: negative)

ALT: alanine aminotransferase; AST: aspartate aminotransferase; CRP: C-reactive protein; CT: *Chlamydia trachomatis*; GA: gestational age; HIV: human innunodeficiency virus; LDH: lactate dehydrogenase; MCH: mean corpuscular haemoglobin; MCV: mean corpuscular volume; NG: *Neisseria gonorrhoeae*; PCR: polymerase chain reaction; RDW: red cell distribution width; TPHA: *Treponema Pallidum* hemagglutination assay; VDRL: venereal disease research laboratory test; y/o: years old

been treated for gonorrhoea but lost to follow-up. All cases could have been prevented through adequate maternal diagnosis and treatment during pregnancy, partner screening, treatment, and clinical follow-up.

In fact, the Portuguese national low-risk pregnancy surveillance program currently provides universal screening for syphilis and HIV (human innunodeficiency virus), but does not include CT or NG.[4] This contrasts with European guidelines, which, although applied heterogeneously across countries, support consideration of CT screening in pregnant women, particularly in settings with higher infection prevalence.[5] The Centers for Disease Control and Prevention (CDC) advises screening all pregnant women under 25 years of age, as well as those with identifiable risk factors – namely a new sexual partner, multiple partners, or a history of STI – at the beginning of pregnancy and again in the third trimester.[6] More recently, the World Health Organization (WHO) has reinforced this perspective by recommending the integration of CT and NG screening into routine maternal health assessments.[5]

The absence of screening for these infections during pregnancy perpetuates the risk of serious complications such as preterm birth, neonatal respiratory and ocular infections, infertility, and increased vertical transmission of other STI.[1,2,5] Available evidence suggests that antenatal CT screening reduces post-delivery prevalence, thereby reducing complications.[6]

We believe these cases underscore the urgent need to update national STI screening policies in Portugal, and aligning them with international evidence and public health best practices, including sexual health education, prevention strategies, treatment adherence, and follow-up.

Implementing a national universal screening program for CT and NG would facilitate early identification and treatment, reducing neonatal morbidity and hospitalization-associated costs.

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All authors contributed equally to this manuscript and approved the final version to be published.

PROTECTION OF HUMANS AND ANIMALS

The authors declare that the procedures were followed according to the regulations established by the Clinical Research and Ethics Committee and to the Helsinki Declaration of the World Medical Association updated in October 2024.

DATA CONFIDENTIALITY

The authors declare having followed the protocols in use at their working center regarding patients' data publication.

PATIENT CONSENT

Obtained.

CONFLICTS OF INTEREST

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