Adolescence and Sexually Transmitted Infections: A Portuguese Single-Center Report

Adolescência e Infeções Sexualmente Transmissíveis: Um Estudo Português Unicêntrico

Keywords: Adolescent; Adolescent Medicine; Mass Screening; Portugal; Prevalence; Sexually Transmitted Diseases, Bacterial/epidemiology
Palavras-chave: Adolescente; Doenças Bacterianas Sexualmente Transmissíveis/epidemiologia; Medicina da Adolescência; Portugal; Prevalência; Programas de Rastreio

Dear Editor,

We read the article "Adolescent Medicine in General Practice: Current Situation and Proposals for Improvement"[1] with great interest. We want to congratulate the authors for writing this article and make some additional contributions.

Despite the growing global threat of sexually transmitted infections (STIs) attributed to *Chlamydia trachomatis* (CT)[2] and *Neisseria gonorrhoeae* (NG),[3] there is no screening plan for STIs in adolescents in Portugal.[4] Both infections are treatable, and addressing them promptly can prevent long-term complications such as pelvic inflammatory disease and infertility, as well as interrupted transmission.[3]

We performed a retrospective study in a public hospital to calculate the prevalence rate of STIs in adolescents between 2017 and 2022. This study protocol was submitted and approved by the local Ethics Committee with reference number A06/2022.

Among 120 urine samples collected, 12 cases were positive for STIs (10 CT; 5 NG with 3 coinfections) with 92% of cases in female patients. The median age at diagnosis was 16 years (13 - 17). The adolescents' characteristics, laboratory findings and treatment are depicted in Table 1.

Regarding the socio-environmental context, 67% had conflicting family backgrounds and school absenteeism. Sexual assault was noted in 25%. Anxiety and depression were reported in 50%.

Notably, 41.6% reported not using contraceptive methods, 58% engaged in multiple sexual partnerships (two or more), and 50% reported tobacco, alcohol and/or cannabinoid abuse. Pregnancy tests and serological screenings were negative. Treatment involved azithromycin for CT and a combination of azithromycin and ceftriaxone for NG, with successful follow-up in the adolescent clinic and no long-term complications.

The observed prevalence rate of 11.7% among the 120 urine samples represents a considerable burden of STIs within this specific population. Our results raise questions about gender-specific vulnerabilities that are in line with international data.[4] The higher prevalence rate in female patients may result from both biological factors and societal determinants, although the male prevalence rate may be underestimated due to asymptomatic infections.[5]

Both the socio-environmental context and substance abuse emphasize the vulnerability to high-risk behaviours, including unprotected sexual activity.

The diagnosis of STIs in adolescents in the emergency department also suggests a potential underreporting of STIs. Adolescents are less likely than adults to access sexual health services, which requires a more active role from healthcare professionals in identifying at-risk individuals.

Enhanced screening and successful treatments are effective at reducing disease,[2,3] which underscores the importance of establishing a national screening program for all sexually active adolescents, even if asymptomatic.

This study contributes valuable data to the global debate on adolescent sexual health.

PREVIOUS AWARDS AND PRESENTATIONS

This abstract was previous presented as a poster with discussion at the "9th Congress of the European Academy of Paediatric Societies" on October 7, 2022.

Table 1 – Characteristics of the twelve adolescents included in this study (n = 12)

Adolescents	Sex	Setting	Symptoms	Contraception	NG	CT	Treatment
1	F	ED	0	0	0	1	A
2	F	AOC	0	Condom	1	0	A+ C
3	F	ED	Dysuria	Condom	0	1	A
4	M	ED	Vaginal exudate	0	1	1	A+ C
5	F	AOC	0	Condom	0	1	A
6	F	AOC	0	Condom	1	0	A+ C
7	F	AOC	Abdominal pain	Both	0	1	A
8	F	ED	0	0	0	1	A
9	F	AOC	Dysuria	Both	0	1	A
10	F	ED	Abdominal pain	0	1	1	A+ C
11	F	ED	0	0	1	1	A+ C
12	F	ED	0	Both	0	1	A

A: azithromycin; AOC: adolescence outpatient consultation; Both: double contraception (condom + oral contraception); C: ceftriaxone; CT: Chlamydia trachomatis; ED: emergency department; F: female; M: Male; NG: Neisseria Gonorrhoeae.

AUTHOR CONTRIBUTIONS

BPA: Data collection, literature search, writing of the manuscript.

AP, ABS: Data collection, writing of the manuscript.

PF: Critical review of the manuscript.

All authors approved the 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 2013.

DATA CONFIDENTIALITY

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

COMPETING INTERESTS

The authors have declared that no competing interests exist.

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