

can inhibit the Th1 immune response and simultaneously activate the Th2 immune response by stimulating T helper cell proliferation and differentiation. We are indicating that miR-135, miR-155 and miR-1272 and miR-223 suppress Th2 specific immune response and maintain the plasticity by activating Th1 specific CD4⁺ T helper cells.

Conclusion: This study indicates that microRNAs have capacity to regulate immune signaling, cytokine production and immune cell migration to control the VL infection in human. This observation warrants further investigation for the development of microRNA based therapy controlling T cell differentiation in human VL.

<http://dx.doi.org/10.1016/j.ijid.2016.02.804>

Type: Poster Presentation

Final Abstract Number: 43.066

Session: Poster Session III

Date: Saturday, March 5, 2016

Time: 12:45-14:15

Room: Hall 3 (Posters & Exhibition)

The epidemiologic considerations about visceral leishmaniasis in Albania 2010-2014



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Background: The aim of this study was to analyze some epidemiologic features of visceral Leishmaniasis in Albanian children.

Methods & Materials: There were included 194 children aged 0-14 years in this study, all admitted and treated for visceral Leishmaniasis since 1010-2014 in Pediatric Infectious Disease Service. We studied the distribution of the disease according to annual incidence, age, gender, living area.

Results: The results are shown in the following table.

YEAR	NEW CASES	GENDER		LIVING AREA		AGE (in years)			
		Female	Male	Rural	Urban	0-1	1-4	4-10	10-14
2010	46	25(54%)	21(46%)	10(22%)	36(78%)	5(11%)	30(65%)	9(20%)	2(4%)
2011	33	14(42%)	19(58%)	4(12%)	29(88%)	5(15%)	20(61%)	8(24%)	0(0%)
2012	47	17(36%)	30(64%)	11(33%)	36(77%)	7(15%)	30(64%)	5(11%)	5(11%)
2013	39	17(44%)	22(56%)	14(36%)	25(64%)	13(33%)	18(46%)	8(20%)	0(0%)
2014	29	11(38%)	18(62%)	6(21%)	23(79%)	3(10%)	19(65%)	6(21%)	1(3%)
TOTAL	194	84	110	45	149	33	117	36	8

Conclusion: Visceral Leishmaniasis is a frequent disease in Albania presented with a considerable number of cases per year. The most affected age group is from 1-4 years old, the male gender is the most affected and urban areas are also predominant over rural ones.

<http://dx.doi.org/10.1016/j.ijid.2016.02.805>

Type: Poster Presentation

Final Abstract Number: 43.067

Session: Poster Session III

Date: Saturday, March 5, 2016

Time: 12:45-14:15

Room: Hall 3 (Posters & Exhibition)

Cervical cytology as a diagnostic tool for genital schistosomiasis and cervical squamous cell atypia among young women from schistosoma and HIV endemic populations in South Africa



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Background: Globally, Africa has the highest prevalence of HIV, schistosomiasis and another neglected entity: cervical cancer. Genital schistosomiasis manifests in lesions that are hypothesized to link with HIV and cervical atypia.

Methods & Materials: This study was conducted among 833 young women aged 16-23 years from rural high schools in KwaZulu-Natal. Risk factors for schistosomiasis and cervical atypia and the association of genital schistosomiasis and squamous atypia of the cervix were investigated using diagnostic cytology, urine microscopy, and questionnaire data.

Results: Participants were sexually active from a young age and 523 (63.0%) had at least one child and 742 (89.1%) relied on rivers as their primary water source. The *Schistosoma* prevalence detected cytologically and via urine microscopy was 12 (1.4%) and 178 (21.4%) respectively. Squamous cell atypia was detected among 567 (68%). There was a significant association between the participants who were positive for any squamous cell atypia and those who had *S. haematobium* eggs in Pap smears (OR = 5.6, $P=0.005$; 95% CI 1.6-21.0) and for *S. haematobium* eggs in urine OR = 2.9, 95% CI 1.72 - 4.99, $P=0.005$).

Conclusion: The specificity of cytology for *Schistosoma* detection was low using is seen previously, it is possible that an improved detection rate of genital schistosomiasis could be achieved using cervico-vaginal lavage *Schistosoma* DNA testing. While a significant association exists between urogenital schistosomiasis as detected by cytology and urine microscopy with squamous atypia in this young population, it must be noted that more than half of the young women have cervical atypia that could potentially regress. Cytology was useful in revealing the squamous atypia among this young population who is not routinely screened, a limitation is that it was not feasible to confirm results using histology or other complementary tests. The relationship between schistosomiasis and cervical cancer is complex, while there may be association, it was not possible to prove causality or eliminate all confounders. In communities at risk, health promotion, screening and health care targeting not only HIV and schistosomiasis, but also cervical cancer should be made available in order to reduce the prevalence of these preventable diseases.

<http://dx.doi.org/10.1016/j.ijid.2016.02.806>