and general knowledge in preventing intestinal parasitic diseases.

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65.002

Health-Seeking Behavior and Out-of-Pocket Expenditure in Patients with Visceral Leishmaniasis in Nepal

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Leishmaniasis is endemic in 88 countries and 350 million people are at risk for acquiring one or the other form of leishmaniasis with an overall prevalence of 12 million worldwide. The visceral type, visceral leishmaniasis (VL) or kala-azar was known to be endemic in Southern Terai (plain region) of Nepal since 1953. Approximately 5.5 million inhabitants are estimated to be at risk of VL in Nepal at present.

We conducted a study to investigate the health seeking behavior and out-of-pocket expenditure for health in patients with VL in Nepal. A sample of VL patients was interviewed at B.P. Koirala Institute of Health Sciences (BPKIHS), a hospital located within the endemic region for Kala-azar in Nepal.

Between September and November 2004 one hundred sixty patients were confirmed with a diagnosis of Kala-azar at BPKIHS. Out of these, 60 (37.5 per cent of 160) patients were enrolled for the study; among them 52 per cent were males. Age of the study population ranged between 18 to 75 yrs, with mean age of 32.3 yrs (SD ±15.1).

Almost half of the patients delayed seeking care for VL for more than 100 days. In addition, the factors playing a significant role in making delayed health seeking were found as gender, perception of disease and the stigma attached. The study got evidence that the severity of the disease and its immediate economic and social impacts determines the decision making regarding the health seeking behavior more than knowledge about the disease.

Almost all of the patients (95 per cent) had visited traditional healers followed by private health care providers [46.7 per cent] for treatment of illness. Their visit to government health care providers and referral center is either fourth or fifth which explains delays in the adequate management of the patient.

The out of pocket expenditure of the patient is maximum in the treatment of kala-azar. The mean total expenditure in VL is 105 US$. An average of 100 days of working days (maximum 210 days and minimum 14 days) was lost due to the disease.

The findings of the study reflects on the advocacy, sensitization and develop skill of protection and control measures to the individuals. The advocacy/awareness intervention is most essential part to reduce the kala-azar morbidity and mortality.

Some major interventions are recommended in this study to reduce morbidity and mortality of VL is given below.

Advocacy, orientation and health education should be provided regarding Kala-azar disease, its transmission, and preventive & control measures to family level, child and youth group, mothers groups and school students as well as community level. It should be in multi disciplinary approach. Educational programs focused on reducing stigma and increasing control over the resources of females and decision making process in health seeking behaviors of VL and to be conducted in formal and informal settings.

As there is a strong stigma regarding the traditional healers in the population, the use of traditional healers for health education and development of awareness of the disease can be implicated. Training and orientation to traditional healers on modern treatment systems should be provided to increase the utilization of modern health facility.

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A Survey on the Effects of Leishmania Major TSA - Encoded DNA Vaccine Against Experimental Leishmaniasis in BALB/c Mice

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Keywords: DNA vaccine; Leishmania major; TSA; Survival time; Parasite burden

Background: Leishmaniasis, caused by an intracellular protozoan parasite, Leishmania major which is transmitted through the bite of sand flies. The disease is prevalent in many parts of the world. TSA is the immuno-dominant antigen of Leishmania major which is considered as the most promising molecule for a recombinant or DNA vaccine against leishmaniasis.

Materials and Methods: In the present study, we evaluated TSA - encoded DNA vaccine against Leishmania major in BALB/c mice. The first was done the genomic DNA extraction and then, done PCR amplification and recombinant plasmid construction and tranfection of recombinant pcTSA into the eukaryotic cells and then done SDS-PAGE and Western blot analysis. The mice were grouped to be based on administration content as follows: 1-PBS (as control group), 2-pcDNA3 (as control group), 3-pcTSA (as vaccinated group) (100 μg of pcTSA).

The mice were immunized via intramuscular (i.m.) into both quadricepses with 100 μL of administration content according to their grouping. Three inoculations were employed at two weeks interval. Three weeks after the last immunization, mice of each groups (vaccinated and unvaccinated mice) were challenged at the base of tail by the intradermal (i.d.) route with 2 × 106 Leishmania major promastigotes (Strain MRHO/IR/75/ER). The measuring of the diameter of lesion at the site of inoculation was monitored weekly by a Vernier caliper thereafter. Also the measuring of the weight was monitored weekly by a scale. All groups of mice were evaluated for lesion development and weight increasing for up to 7 weeks after challenge with Leishmania major. Then, animals were sacrificed and was done determination of parasite burden in their spleen.

The statistical comparisons between experimental groups were carried out with an analysis of variance (ANOVA)
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no response to repeated cycles of liposomal amphotericin by absent epidemiological clues, a prolonged course, and macular-papular cutaneous involvement was characterized of HIV-associated K complicated by a diffuse, aspecific spread was described. Case report. An atypical episode immunodeficiency is present; infrequently, a cutaneous as an opportunistic infection, when a deep HIV-related therapy may restore the immune function and significantly after multiple failures of LAB. An effective antiretroviral pentamidine-paromomycin treatment became necessary, tally documented. In our particular episode, a prolonged Like in our case, failure of AB in treating K was anecdo- and safe, especially when administered in short courses. is limited. The first-line treatment of HIV-associated K is debated. Pentavalent antimony compounds were the is reliable also when immunodeficiency a biopsy with histopathology-culture becomes mandatory, complications, and may be the clue of a missed K, so that enters in a broad spectrum of possible HIV-associated com- like Toxoplasma gondii IgM persists in serum for months after infection, hence, not suitable as an evidence of recent infection, beside its lack of specificity. T. gondii IgG avidity assay is expected to distinguish recent and past infection. High avidity excludes recent infection in the preceding 16—20 weeks, while low avidity doesn’t differentiate recent from old infection. This study evaluated the use of IgG-avidity assay and IgG and IgM to detect recent toxoplasmosis in early pregnancy. Methods: Sera from 2070 asymptomatic Saudi Arabian pregnant women at different gestational stages were first screened for T. gondii IgG by indirect hemagglutination test (Toxocell IHA, biokit, Spain). Enzyme linked fluorescent assay (ELFA, VIDAS, BioMerieux, France) was used to detect T. gondii IgM and to measure total IgG and IgG-avidity index (AI).

Results: Out of 401 IHA-positive sera, 151 (37.7%) samples were positive for T. gondii IgM, among which AI was low in 17 samples (11.3%), intermediate in 1 (0.6%), and high in 133 samples (88.1%). The possibility of recent infection in IgM-positive sera was excluded with a high IgG AI (95% CI, 83—93%). High AI was shown in 97.8% of IgM-negative sera. These finding minimized the value of a positive IgM finding as single indicator for acute recent infec- tion. Actually, it highlighted the value of IgG avidity assay to exclude recent infection. No significant correlation between level of IgG, and presence of either low or high AI; or between IgG level and presence of IgM in serum (r ≈ 0.092) (p < 0.05). Conclusion: For early diagnosis of T. gondii infection, pregnant women should be initially screened for IgG, to determine the patient’s immune status; followed by IgM assay of IgG-positive sera. Absence of serum IgM excludes