Young People’s Involvement in an HIV/AIDS Care & Support Program: The Key to Combating the Epidemic

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Introduction: Youth have a lack of knowledge and awareness about sexual and reproductive health (SRH) issues and problems, especially, puberty, menstruation, physical changes in the body, reproduction, contraception, pregnancy, childbearing, reproductive tract infections (RTIs), sexually transmitted infections (STIs), and HIV was low among boys and girls. The Educational and Rural Development Society (ERDS) in a joint partnership with Oxfam (India) Trust (an EC funded project) implemented an innovative program titled “HIV/AIDS Prevention and Care Program among Rural and Tribal Youths” in three Blocks (covering 120 villages) in the Bharatpur District. This program addressed gender inequalities, included girls or attended to their specific needs, reached married and/or out-of-school adolescents from rural-tribal areas. Often, the program took a narrow, vertical approach without considering young people’s educational, economic, and other social needs. The needs of married adolescents were totally neglected. Young people’s problems were further compounded by poverty, unemployment and lack of marketable skills.

Program Methodology: Under this project ERDS has adopted the innovative “Youth Friendly Recreational Centre (YFRC)” for greater involvement of youths in the program. Initially ERDS established 9 YFRCs for both male and female, but we could achieve major involvement of female youths, though our society (including the family) considers sex and sexuality as taboo, and thereby making the young youths further ignorant about SRH issues. Subsequently, ERDS established 9 YFRCs especially for female youths. The YFRCs covered their respective 8 to 10 surrounding villages; the places for the YFRCs were given by the community free of cost, and were safe and friendly places for youths to get-together. PEs were made in-charge for running each center with assistance from PRI members. (One Management Committee was formed by PEs for the sustainable functioning of the centers). There were different specific times for the opening of the centers for both girls and boys (this was decided after meeting the youth of that area). The main purpose of establishing these centers was to easily reach as many youths as possible, preferably youths from adjacent villages benefitting from this resource center. The centers were designed to be attractive and informative places, highly acceptable to parents. BCC innovative and portable materials were made available at all the YFRCs to be accessed by youths. Other items were also kept at the center such as: newsletters (having success stories/articles), comics, indoor games and entertainment items (puppetry, magic tricks, quiz, puzzles etc.), Employment News Papers and other magazines useful for youths to enhance general knowledge. Every month at YFRC; ERDS organized a full day youth friendly health camp (one doctor along with nurse), the camp is especially designed for the treatment of RTI/STI cases. After checkups ERDS provides, free of charge, 6 to 8 days of medicines. PEs also refers their peers to this health camp and support project functionaries during follow-up of patients. There is a skill building program which helps with parent’s acceptance and the greater involvement of youths in YFRC; these skill building training programs include stitching and knitting, cooking, as well as entrepreneurial skill building sessions.

Lessons learnt:
• Involvement of youths especially females has been increased.
• Now youths are freely talking about the sex & sexuality, and various RH issues with their peers.
• Parental acceptance has been increased.
• Youths are involving in various forums like Gram sabha and other community meetings and putting their issues in the meeting.

Recommendations: ERDS should develop a better strategy for the sustainability of the YFRCs e.g. by collecting monthly community contribution.

Partial Normalization of the Activated Immune Response in Lymph Nodes of HIV-Infected Individuals Under ART


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Background: Apoptosis plays a major role for lymphocyte depletion in HIV+ patients, although mechanisms are still unclear. Antiretroviral therapy (ART) controls viral replication and leads to a partial immune restoration, thus indirectly interfering with apoptosis. Studies on apoptosis examining sequential lymph nodes (LN) are rare.
Objectives: To investigate the influence of ART on viral, immune and apoptosis-related markers in LN of HIV+ individuals at initiation and after follow up of ART.

Methods: LN from 35 ART-naive HIV+ patients were excised. A second LN excision was made under ART between 16 and 20 months later. Four of the 35 patients did not receive ART. As control, 5 LN were obtained from HIV- individuals. Paraffin sections were made and immunohistochemically stained with a panel of antibodies including CD4, CD8, CD21, p24, bcl-2, IL-7R-alpha, Flt, Fas, FasL, and active caspase-3. Quantification was done by computer-assisted image analysis using the Openlab program. For statistical analysis the Wilcoxon signed rank test was used, p < 0.05 was considered significant.

Results: Generally, the number of germinal centers decreased (p < 0.001) and partial normalization of hyperplasia (p < 0.01) occurred under ART. p24 disappeared in 7 from 20 patients under ART. The number of CD8+ T cells decreased interfollicular in 16 of 16 patients (p < 0.0001) and follicularly in 16 of 18 patients (p < 0.0001), while the interfollicular CD4+ T cells significantly increased in 15 of 15 patients (p < 0.0001) CD4+ under ART. CD21+ follicular dendritic cells (FDC) increased in 11 of 12 patients (p < 0.01) under ART. IL-7R-alpha; which is essential for optimal CTL-activity, increased in 8 of 8 patients (p = 0.01). Among the apoptosis-related markers, bcl-2 in the mantel zone (13 of 13; p < 0.0001) and active caspase-3 (14 of 14; p < 0.0001) in the sinus were significantly increased, while Fas (5 of 6) in the germinal centers increased but did not reach statistical significance. FasL and anti-apoptotic Flip expression were unaffected by ART.

Conclusions: Under ART normalization of follicular hyperplasia of germinal centers, reduction of the CD8 T cell number and recovery of FDCs indicates a restoration of immune activation in LN similar to HIV- individuals. The increase of the IL-7R-alpha; indicates that IL-7, known to impair cell mediated immunity, is downregulated. Reduced dysregulation of apoptosis is manifest by the upregulation of bcl-2 in the mantle zone and of caspase-3 in the sinus. Hence, the highly activated immune response and the CD8 CTL-activity present in LNs of untreated patients tend to normalize under ART.

Clinical Outcomes in HIV Positive Patients after Oral and Maxillofacial Surgery

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Introduction: The purpose of this study was to perform a preliminary test of the hypothesis that patients infected with the human immunodeficiency virus (HIV) have an increased risk of complications after oral surgery in comparison with HIV-negative patients.

Methods: A retrospective cohort study records of HIV seropositive individuals who underwent any dentoalveolar surgical procedures between 1999 and 2004 was matched with the records of HIV negative control patients. Demographic and clinical information was entered into a database that included: indication for surgery, type of surgical procedure, emergent or elective surgery, anesthetic type, pre-procedure antibiotics, CD4 count, viral load, white blood cell count, hematocrit, serum chemistry and liver functions tests. Perioperative and post-operative events were recorded as complications if they occurred within 30 days of surgery and if they were described in the record as a complication or an unexpected event. Logistic regression analysis was done to determine the independent effects of HIV infection and other potential risk factors for surgical complications.

Results: The adjusted rates [(OR = 3.12, p = 0.02)] of infectious and hematological complications in major dentoalveolar procedures were higher among the HIV positive patients then among the HIV negative individuals. Values associated with complications were age (OR = 1.68), ethnicity (OR = 1.97), viral load (OR = 2.33) and highly active antiretroviral therapy (OR = 2.45).

Conclusions: HIV- seropositive status was found to be an independent risk factor for complications of major oral surgical procedures. The most important risk factors for complication of surgery in HIV positive individuals were high viral load and absence of antiretroviral treatment.