

Public Health Digest

FOCUS on HIV/AIDS, STIs and TUBERCULOSIS

Quarterly P.H. Digest of the Ethiopian Public Health Association (EPHA)

Volume 5.



No. 1

December, 2010

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- The Issue
- Definitions of medical terms related to HIV/AIDS, STI & TB

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Public Health Digest

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Objectives of this Digest

- Improve knowledge, and practices of public health professionals in the areas of HIV/AIDS, STIs and TB.
- Introduce latest research findings, best practices and success stories to the general public through public health practitioners, trainers, planners and researchers.
- Motivate health workers to engage themselves in operational studies through dissemination of abstracts from studies conducted by health professionals working in health units and training institutions

Target Audiences:

The target groups for the Digest are health professionals in general; and trainers in training institutions, public health practitioners at woreda health offices, in health centers and hospitals, in particular. This Digest will also be extended to non-health professionals who are interested on the subject on a demand-basis for free subscriptions.

Strategy:

Four thousand copies would be published quarterly. Distribution follows the modalities of other EPHA publications. In addition ,regional, zonal and woreda offices, institutions of the MoH & HAPCO branch offices serve as channels for distributing the Digest.

Acronyms

AAU	Addis Ababa University
ACE	Angiotensin Converting Enzyme
AIDS	Acquired Immuno Deficiency Syndrome
AOR	Adjusted Odds Ratio
ARBs	Angiotensin Receptor Blockers
ART	Anti Retroviral Therapy
ARV	Anti Retroviral
CDC	Center for Disease Control
CD4	Cluster of Differentiation 4
COR	Crude Odds Ratio
EDHS	Ethiopia Demographic and Health Survey
EPHA	Ethiopian Public Health Association
ESRD	End Stage Renal Dialysis
ESRF	End Stage Renal Failure
HAART	Highly Active Antiretroviral Therapy
HAPCO	HIV/AIDS Prevention and Control Office
HIV	Human Immune Deficiency Virus
MDGs	Millennium Development Goals
MoH	Ministry of Health
NAR	National Agency for Research
NRTIs	Nucleoside Reverse Transcriptase Inhibitors
NNRTIs	Non Nucleoside Reverse Transcriptase Inhibitors
OR	Odds Ratio
PENTA	Pediatric European Network for Treatment of ADIS
PIHTC	Provider Initiative HIV Testing & Counseling
PIs	Protease Inhibitors
PMTCT	Prevention of Mother to Child Transmission
SPSS	Statistical Package for Social Science
STI	Sexually Transmitted Infection
TB	Tuberculosis
VL	Viral Load
US	United States
UNAIDS	United Nations Program on HIV/AIDS
VCT	Voluntary Counseling and Testing
WHO	World Health Organization

Editorial

Safe motherhood Initiatives to Communities

The UN high-level meeting on the Millennium Development Goals comes up with promises to reduce the uncompromising maternal deaths. Predictably, the promises are gigantic but progress is always slow. We keep hoping that this time, something will be done to prevent unnecessary deaths linked to maternal health. Nobody disputes the importance of the issue but surprisingly, nothing much is done to save lives. Since the setting up of MDG5, little progress has been registered. According to the latest issue of "Trends in Maternal Mortality: 1990 to 2008" by WHO, UNICEF, UNFPA and the World Bank, maternal mortality declined globally by 34 per cent from the 1990s. What is intimidating is that Sub-Saharan Africa and South Asia accounts for 87 per cent of the estimated 358,000 maternal deaths in 2008 and only 11 countries, six of which are in Sub-Saharan Africa, accounted for 65 per cent of these deaths.

The world is now left with five years to meet the MDG . Pledges in additional of \$40 billion have been made for the next five years towards the Global Strategy for Women's and Children's Health. Some ambitious critics might say this figure is not enough but, if used well, will alleviate the unnecessary suffering in our local communities.

A number of approaches have been tried and proved to be effective in increasing the availability and accessibility of quality care in ma-

Although further research and evaluations are needed, performance-based financing has proved to be useful in the developing world than input-financing mechanisms.

Demand-driven approaches like community intervention have also proved effective in promoting development. If community interventions are strengthened, the results will be encouraging. Simple mechanisms like the use of extension health workers, collaboration with traditional birth attendants and strengthening family care for newborns will go a long way in reducing maternal deaths. What is needed is only a working community system and leadership. In Ethiopia, communal living is one of our strongest attributes, why then can't we harness these strengths for progress. Our leadership should come up with good policy documents and develop clear strategies to ensure the funds pledged reach the local communities. In many cases the funds are used, abused and misused in planning and plenary sessions that are endless and far from the local communities who really need the money. We are talking of our mothers, wives, sisters and daughters.

One aspect that makes humans animals of a higher nature is that we can make things happen. If science today can produce an atomic bomb to wipe us out of existence and if Armstrong was on the moon in the 1960s, can't we today have simple means to save the lives of women - our mothers, sisters, daughter and friends? Our governments can do better indeed.

Updates

Updates on HIV/ AIDS, TB and Malaria

Clinical Trials Investigate Potential of Therapeutic Vaccines for People With HIV

Clinical trials for several types of therapeutic HIV vaccines are currently ongoing or recruiting participants. Therapeutic HIV vaccines work by enhancing the body's natural immune response, helping to control HIV in people already infected with the virus. This is in contrast to preventive vaccines, which are used in HIV-negative individuals to prevent infection.

Researchers hope therapeutic vaccines will decrease dependence on antiretroviral drugs,

which must be taken for life and often have serious side effects. A lead investigator of one of the HIV vaccine trials said "A vaccine that enhanced the body's ability to control HIV and delay or decrease the dependence on anti-HIV drugs would be a major breakthrough for HIV treatment". However; no therapeutic vaccines are currently approved by this trial thus far.

DNA Vaccines

DNA vaccines contain pieces of DNA into which copies of several viral genes have been inserted. When human cells take up the DNA, they produce proteins encoded in the viral genes. Researchers hope that the body's immune system will recognize these proteins as harmful foreign

agents and mount a powerful protective response. DNA vaccines are a relatively new idea, and their effectiveness has not been well studied yet, although preliminary clinical trials have usually found them to be safe.

A small Phase 1 clinical trial investigating a therapeutic HIV DNA vaccine from GeoVax Labs is currently recruiting participants.

To be eligible for the GeoVax study, participants must have begun antiretroviral treatment within six months of diagnosis with HIV/AIDS. Additionally, individuals who have been HIV-positive for up to six months, but are yet to begin treatment, may be eligible for enrollment in the study.

Participants will be monitored to determine the safety of the vaccine and strength of their immune response for up to 77 weeks. For this initial study, only 10 to 12 people will be enrolled in the trial.

So far, studies in HIV-positive primates treated with the vaccine soon after infection gave good results. Clinical trials will now see if these results extend to HIV-infected humans as well.

Another Phase 1 DNA vaccine trials is also recruiting participants in London. This trial, run by the Imperial College London and the Medical Research Council, will test a new therapeutic DNA vaccine coupled with immune-based therapy, which includes hormones and proteins called cytokines. Immune-based therapies could help patients' immune systems fight viruses on their own. Hormones and cytokines help regulate the immune system and can be used to induce, or prevent, growth and activity of particular cells in the immune system.

The researchers are especially interested in “why some people with HIV progress more slowly to disease and have longer survival without highly active antiretroviral therapy (HAART) than others.” Their goal is to see if the vaccine plus immune-based therapy can create long-term non-progressors, who are able to control the HIV virus for long periods of time without antiretroviral.

The trial began in September 2009 and will investigate the safety and efficacy of the vaccine plus immune-based therapy for 52 weeks in approximately 30 HIV-positive individuals. Study participants must be aged 18 or over with viral loads of less than 50 copies/milliliter and more than 400 CD4 cells/microliter.

Dendritic Cell Vaccines

Another novel vaccine type that will be tested in several new clinical trials is a dendritic cell vac-

cine, which is prepared using the participant’s own cells. Dendritic cell vaccines are considered to be very promising, because they are somewhat customized to each person.

To make a dendritic cell vaccine, researchers collect blood from participants and isolate a certain type of immune cell called a dendritic cell. After exposing the cells to HIV proteins to prompt an immune response, the cells are re-injected into the study participant in hopes that they will now be activated and fight against HIV.

A Phase ½ clinical trial run by the University of Pittsburgh and the French National Agency for Research on AIDS and Viral Hepatitis (NAR) is also recruiting participants. Eligible candidates must be at least 18 years of age with CD4 cell counts of at least 350 cells/microliter and HIV RNA levels between 5,000

and 100,000 copies/milliliter. Participants must also be antiretroviral therapy naïve.

Baylor Research Institute along with Baylor University and the ANRS are also organizing a Phase ½ clinical trial to assess the safety and efficacy of a dendritic cell vaccine in HIV patients on HAART. The study, which began in November 2008, is currently recruiting participants and enrollment is estimated at 19 patients. Participants must be 18 years or older and must have been on HAART for at least 12 months prior to enrollment. Additionally, participants must have CD4 cell counts of at least 500 cells/microliter and HIV RNA levels no greater than 50 copies/milliliter.

Protein Vaccines

Finally, there is a more traditional vaccine trial that is currently recruiting HIV-positive participants

in Italy. Traditional HIV vaccines contain virus proteins that are injected into the participant in hopes of increasing immune response to the virus. The Phase 2 trial in Italy will evaluate the safety and efficacy of an HIV Tat vaccine. Tat is an HIV protein released by infected cells that increases the rate of replication of the virus.

The study was initiated by the Istituto Superiore di Sanita in September 2008 and will enroll about 160 participants. Participants must be between the ages of 18 and 55, must not possess anti-Tat antibodies, and must be on successful HAART with HIV viral concentrations of less than 50 copies/milliliter and at least 200 CD4 cells/microliter.

The trial will measure immune responses to the Tat protein in participants for 144 weeks, or about two and a half years.

የጥናት ወጤቶች



የደም ግፊት እና ያለልክ ውፍረት በሥኳር ህመምተኞች እና የስኳር ህመም በሌላቸው ሰዎች መካከል ያላቸው ገፅታ በደቡባዊው ኢትዮጵያ

መግቢያ

በአለማችን ዙሪያ የሚገኙ ህመም ዙሪያም ሆነ ሌሎች የሥኳር ህመምተኞች ቁጥር በ1995 የካርዲዮቫስኩላር (cardiovascular) ከተመዘገበው 135 ሚሊዮን በ2025 ወደ ህመምተኞችን ጨምሮ የተደረገ ጥናት 300 ሚሊዮን ሊያድግ እንደሚችል እምብዛም የለም። ነገር ግን ከ16 ተገምቷል ። አመታት በፊት ከኢትዮጵያ ወደ ይህ ከፍተኛ የቁጥር መጨመር እስኪደርስ በማደግ ላይ ያሉ ሀገሮች በአብዛኛው በማደግ ላይ ያሉ ሀገሮች አፍሪካን ጨምሮ በስፋት ሊያጠቃ እንደሚችል ተገምቷል። የስኳር ህመም ከዲሊምፒዲያ (dyslipidemia) ከደም ግፊት (hypertension)፣ ከልክ ባለፈ ውፍረት (central obesity) እና ከማይክሮ አልቡሚኒርያ (micro-albuminoidal) የጎነ-ዮሽ (coexist) በሽታ በመሆን ይከሰታል። በጠቅላላው ሲታይ ከስህራ በታች ባሉ አገሮች ኢትዮጵያን ጨምሮ በስኳር የካርዲዮቫስኩላር (cardiovascular) ህመምተኞችን ጨምሮ የተደረገ ጥናት እምብዛም የለም። ነገር ግን ከ16 አመታት በፊት ከኢትዮጵያ ወደ እሥራኤል በተሰደዱ ቤተአስራኤላዊያን ላይ በተካሄደ ጥናት፣ የጥናቱ ተሳታፊዎች ዘመናዊ ለሚባል የኑሮ ሥልት (civilized living style) በሚጋለጡበት ጊዜ ዳያቤቲስ ሜሊትስ (diabetes mellitus) ሊያጠቃቸው እንደሚችል ተረጋግጧል። ዘመናዊ የኑሮ ሥልት በተስፋፋ መጠን የካርዲዮቫስኩላር ህመምተኞችን መጠን ለመቀነስ ገንዘብን እና አቅምን ያገናዘበ ዘዴ መቀየስ የግድ ይላል ።

ባለፉት ሁለት አሥርት አመታት፣ የስኳር ህመም የሌለባቸው የማወዳደሪያ በኢትዮጵያ ውስጥ፣ ከፍተኛ የሆነ የከተማ ቡድን ከሲዳማ ዞን ገጠራማና ከተማ ነዋሪዎች የአኗኗር ስልት ለውጥ አካባቢ ተመርጠው በጥናቱ ተሳትፈዋል። ከመምጣቱም ባሻገር የሀገብ ብዛት በስፋት የናሙና አወሳሰዱ ስሌት ጨምሯል። የተሰራው ለሁለት የጥናት ቡድኖች (two population proportion) በሚያገለግል በ2007 ዓ.ም በጥቁር አንበሳ ሆስፒታል ዘዴ ሲሆን፣ 50 በመቶ የስኳር ወስጥ የተካሄደው ጥናት እንደሚያሳየው ህመምተኞችን እና 35 በመቶ የስኳር የካርዲዮቫስኩላር ህመምተኞችን እና 35 በመቶ ስኳር በሽተኞችን ለሞት ከሚዳርጉ በሽታዎች ህመም የሌለባቸው ተሳታፊዎችን የአንደኝነት ደረጃ እንደሚይዝ ያሳያል ። በመውሰድ ነው። ከዚህ በተጨማሪ 95 በዚህ ውጤት መነሻነት መሠረት፣ ይህ ጥናት ሥኳር ህመምተኞች እና የሥኳር ህመም በሌለባቸው መካከል የካርዲዮቫስኩላር ህመምተኞች ተጋላጭነት መጠን ለማወዳደር ተሞክሯል።

የጥናቱ ዘዴ

የጥናቱ መረጃ የተሰበሰበው ይህ ጥናት በአንድ በተወሰነ የጊዜ መጠይቆችን በመጠቀም ሲሆን መጠይቁ በአራት ንዑስ ርዕሶች (sub themes) የተከፈለ ነበር። መጠይቁ ከመጠቀሙ በፊት ከጥናቱ ናሙና 5 በመቶ በመውሰድ ቅድመ ፍተሻ (pretest) ተደርጎበታል። የመረጃ አሰባሰብ ሂደት ከመፈፀሙ በፊት ለመረጃ ሰብሳቢዎች የተሰበሰበው የጥናቱ መረጃ የተሰበሰበው ይህ ጥናት በአንድ በተወሰነ የጊዜ ገደብ ላይ አተኩሮ የተጠና ጥናት ዘዴን በመከተል በደቡብ ኢትዮጵያ ሲዳማ ዞን በመከተል በደቡብ ኢትዮጵያ ሲዳማ ዞን ውስጥ ከጥቅምት 2008 እስከ የካቲት 2009 ድረስ የተካሄደ ነው። የስኳር ህመምተኞች ከሀዋሳ ሪፈራል ዩኒቨርሲቲ ሆስፒታል እና ከይርጋአለም የክልል ሆስፒታል ተመርጠዋል።

በአሰባሰቡ እንዲሁም በሥነ ምግባር ዙሪያ ስልጠና ተሰጥቷቸዋል።

የጥናት ተሳታፊዎች በሰውነታቸው ክብደት መሰረት በቡድን በቡድን በማስቀመጥ ለመክፈል ተሞክሯል። የአከፋፈሉ ሂደት የአለም ጤና ድርጅት (WHO) ባወጣው መመሪያ መሰረት ሲሆን፣ ዝቅተኛ ክብደት (underweight BMI<18.5kg/m2)፣ ከፍተኛ ክብደት (overweight BMI 18:5 – 24.9 kg/m2) የሆኑ ሲሆኑ እጅግ ከፍተኛ ክብደት (obese BMI>30.0kg/m2) እንደሆኑ በመውሰድ ነው። የዳሌና የወገባቸው ምጥጥኖች (Waist-hip-ratio) 0.95 ወይም ከዛ በላይ የሆኑ ወንዶች እና 0.85 ወይም ከዛ በላይ የሆኑ ሴቶች እንደ ሴንትራሊ ኦቤስ (centrally obese) ተወስደዋል።

መረጃው ከተሰበሰበ በኋላ ኤስ ፒ ኤስ ኤስ /SPSS/ 15.0 በመጠቀም የማጣራት፣ የመመዘገብ እና የማስተካከል ስራ ተሰርቷል። በትንተናው ወቅት ካይ ስኩዌር (chi square) እና ስቲደንት ቲ-ቴስት (student t-test) በስራ ላይ ውለዋል። ከ 0.05 በታች የሆነ የፒ መጠን (p-value) ትርጉም እንዳለው ልዩነት ተቆጥሯል።

በሁለቱ የጥናት ቡድኖች መካከል ያለውን ዝምድና ለመመልከት ሁለንተናዊ ተጠያቂያዊ ትንተና (multiple logistic regressions) ጥቅም ላይ ውሏል። ጥናቱ ከመካሄዱ ቀደም ብሎ ከኮሌጁ ቋሚ ግምገማ ቦርድ፣ ከቀበሌዎች መስተዳደር አካላት እንዲሁም ከዜና የጤና ቢሮ የስነምግባር ማረጋገጫ ፈቃድ ተወስዷል። በተጨማሪም የጥናቱን አላማ በዝርዝር ከተረዱ በኋላ፣ የጥናቱ ተሳታፊዎች የፈቃደኝነት ማረጋገጫ ቃላቸውን ሰጥተዋል።

የጥናቱ ውጤት

ለጥናቱ ከተመረጡት 444 ግለሰቦች መካከል 395 ያህሉ በትክክል የተሳተፉ ሲሆን ይህም 88.9 በመቶ ያህል ሽፋን አለው። ከ 395 ተሳታፊዎች መካከል 199 (50.40 በመቶ) ያህሉ ደግሞ የስኳር ህመም የሌላቸው ነበሩ። ከስኳር ህመምተኞች መካከል 152 (76.4 በመቶ) ታይፕ -1 (type-1 diabetes mellitus) ያላቸው ሲሆኑ የተቀሩት 47 (23.4 በመቶ) ታይፕ -2 (type -2 diabetes mellitus) ያላቸው ነበሩ።

የተሳታፊዎቹ አማካይ የእድሜ 255 (64.6 በመቶ) እና ዝቅተኛ ደረጃ 36.08 ± 14.72 አመት ሲሆን፣ የትምህርት ደረጃ ያላቸው 266 (67. ከ12—80 የእድሜ ክልል ውስጥ የሚገኙ በመቶ) ሽፋን እንዳላቸው ታይቷል። ግለሰቦች ነበሩ። ከጥናቱ ተሳታፊዎች 367 ከጥናቱ ተሳታፊዎች አብዛኞቹ (92.9 በመቶ) ያህሉ ከቦታ ወደ ቦታ 307 (77 በመቶ) ያህሉ ከአዋሳ ውጪ ለመጓጓዣ የእግር ጉዞን ይጠቀማሉ። የሚኖሩ ሲሆኑ ወንዶች 265 (67.1 በመቶ)፣ ያገቡ 236 (59.7 በመቶ) የፕሮቴስታንት እምነት ተከታዮች 290 (73.4 በመቶ)፣ ከሲዳሞ ዘር የተወለዱ

ሰንጠረዥ 1: ሁለንተናዊ ተጠያቂያዊ ትንተና የዳቤቲስ ሚሊተስ አመላካቾች የስኳር ህመም ከሌላቸው ተሳታፊዎች ጋር በንፅፅር ሲታይ ሲዳሞ ዞን፣ ኢትዮጵያ፣ 2008

ተሰየሙ በሀገራት	የስኳር ህመምተኞች	የስኳር ህመምተኞች	የስኳር ህመምተኞች	የስኳር ህመምተኞች	የስኳር ህመምተኞች	የስኳር ህመምተኞች	የተጠቃሚው (adjusted or 95% CI)	ፕፕልስ
የደም ግፊት አለ የለም	52 (72.2%)	147 (4.5)	20 (27.8)	3.113(1.778-5.451)	4.87(2.06-11.49)	<0.001*		
			176 (54.5)					
ብሄር ሲያም ሌሎች	143 (56.1)	56 (40)	112 (43.9)	1.95(1.26-2.912)	436(2.04-9.34)	<0.001*		
			84 (60)					
የወገብ በዓለ ምግብ ምግብ ምግብ	152 (58.5)		108 (41.5)	1.89(1.89-2.995)	3.96(1.76-8.92)	0.001*		
የሰውነት ክብደት ≥ 25 kg/m2 < 25 kg/m2	44 (42.7)		59 (57.3)					
	46 (71.9)		18 (28.1)	2.97(1.65-5.34)	2.83(1.11-7.26)	0.033*		
የደም ግፊት፣ በዘር ስለመኖሩ	153 (46.2)		178 (53.8)					
	17 (47.2)		19 (52.8)	3.599(1.729-7.91)	1.90(0.72-5.03)	0.204		
ዖታ	44 (19.9)		177 (80.1)					
	152 (57.4)		113 (42.6)	2.38(1.54-3.66)	1.58(0.71-3.54)	0.261		
በዘር በሀገር በድንገት የሞተ ስለመኖሩ	47 (36.2)		83 (63.8)					
	11 (52.4)		10 (47.6)	4.092(1.645-10.181)	1.03(0.27-3.89)	0.966		
	50 (21.2)		434 (78.8)					

የጥናቱ ትንተና

በዚህ ጥናት ውጤት መሰረት አብዛኞቹ ተሳታፊዎች ወጣቶች ሲሆኑ አማካይ ዕድሜያቸው መጠን 36 አመት ነበር። 9.1 በመቶ ያህሉ ተሳታፊዎች ብቻ እድሜያቸው ከ 60 አመት በላይ ነበር። ይህ የእድሜ ስብጥር በኢራን ከተጠና ጥናት ጋር ተመሳሳይነት አሳይቷል።

ምንም እንኳን የናሙና አወሳሰዱ ሂደት የተደረገው በነሲብ ቢሆንም አብዛኞቹ ፈቃደኛ ተሳታፊዎች ወንድ የስኳር ህመምተኞች ነበሩ። ነገር ግን በሌሎች ጥናቶች ውጤት መሰረት አብዛኞቹ የስኳር ህመም ተጠቂዎች ሴቶች እንደሆኑ ያሳያል።

በዚህ ጥናት የወንዶች ቁጥር በልጦ የታየበት ምክንያት በጥናቱ ውስጥ ከተካተቱት ተሳታፊዎች መካከል አብዛኞቹ ወንዶች ከመሆናቸውም ባሻገር በክልሉ የሚገኙት ወንዶች የአመጋገብ ስልት በካሎሪ የበለፀገ መሆኑ ሊሆን ይችላል። ከዚህም በተጨማሪ ወንድ ተሳታፊዎቹ በቀጥታ ለጉልበት ስራ አለመጋለጥ እና ጤና አገልግሎት

ለማግኘት ያላቸው ዝንባሌ አናሳነት እንደሌላ ምክንያት ሊቀመጥ ይችላል።

በጥናቱ ከተሳተፉት 18.8 በመቶ የደም ግፊት ያለባቸው ሲሆኑ ከዚህ አሃዝ ውስጥ 23.1 በመቶ የስኳር ህመምተኞች ሲሆኑ 10.2 በመቶ ያህሉ የስኳር ህመም የሌለባቸው ነበሩ። ይህ በሁለቱ ህመሞች መካከል ያለው ዝምድና በሌሎች ጥናቶችም ውስጥ የታየ ሲሆን፣ የደም ግፊት በተለይ ከታይፕ 2 ዳያቤቲስ ጋር ከፍተኛ ትስስር እንዳለው አሳይቷል።

እንዲሁም ደግሞ ሴንትራል አቤሲቲ እና አቤሲቲ ከስኳር ህመም ጋር ከፍተኛ ዝምድና እንዳላቸው አሳይተዋል። ሴንትራል አቤሲቲ ወንዶች ይልቅ ሴቶችን እንደሚያጠቃ ጥናቱ ቢያመለክትም አቤሲቲ ግን በሁለት ያታዎች መካከል ምንም ልዩነት አላሳየም። ከዚህም በተጨማሪ ሆድ አካባቢ የሚከሰት ውፍረት (abdominal obesity) ከስኳር ህመም ጋር ከፍተኛ ቁርኝት እንዳለው ሲታወቅ ይህ ጉዳይ በሁለቱም ያታዎች ላይ የሚከሰት ነው።

የስኳር ህመም በብሄር ሲታይ ሲዳማ ያላገቡ፤ ቤተሰባቸው የደም ግፊት ህመም የሆኑ ተሳታፊዎችን በስፋት ባላቸው መካከል ድንገተኛ ጥት እንደሚያጠቃ ጥናቱ ያሳያል። ይህም አጋጥሟቸው የሚያውቅ ተሳታፊዎች ሊሆን የቻለበት ምክንያት ከጥናቱ ከስኳር ህመም ጋር ትስስር እንዳላቸው ተሳታፊዎች በርካታ ቁጥር የሸፈኑት ታይቷል።

የሲዳማ ብሄር ተወላጆች ከመሆናቸውም የሲዳማ ብሄር ተወላጆች ከመሆናቸውም በተጨማሪ፤ በዚህ ብሄር ተወላጆች ውጤት መሰረት ሌሎች ተከታታይና አካባቢ የተለመደው የአመጋገብ ስልት ሰፊ ያሉ ጥናቶች ለካርዲዮቫክሎላር ሊሆን እንደሚችል ይገመታል።

ማጠቃለያ

በጠቅላላው ኢትዮጵያ ውስጥ በተደረገ ሀገራዊ ጥናት ለካርዲዮቫክሎላር አጋላጭ ከሆኑ ህመሞች መካከል የደም ግፊት ዋነኛ ሆኖ ታይቷል። ይህ ህመም በተለይ እንደ አዲስ አበባ ባሉ ከተሞች የስርጭቱ መጠን እስከ 31.5 በመቶ በወንዶች እና 28.9 በሙሉ በሴቶች እንደሆነ ጥናቱ ያሳያል።

በተጨማሪም የደም ግፊት፣ ሴንትራል አቤሲቲ፣ ከፍተኛ የሰውነት ክብደት፣ አቤሲቲ እና ብሄር ከስኳር ህመም ጋር ከፍተኛ ቁርኝት እንዳላቸው ይህ ጥናት አሳይቷል።

በተመሳሳይ ሁኔታ ወንድ፣

የሳገቡ፣ ቤተሰባቸው የደም ግፊት ህመም ባላቸው መካከል ድንገተኛ ጥት አጋጥሟቸው የሚያውቅ ተሳታፊዎች ከስኳር ህመም ጋር ትስስር እንዳላቸው ታይቷል።

እንደማጠቃለያ፣ በዚህ ጥናት ውጤት መሰረት ሌሎች ተከታታይና ሰፊ ያሉ ጥናቶች ለካርዲዮቫክሎላር ህመሞች አጋላጭ በሆኑ ሁኔታዎች ዙሪያ ቢሰሩ ማህበረሰቡ የበለጠ ተጠቃሚ እንደሚሆን የዚህ ጥናት አጥኚዎች ያመለክታሉ።

በአዲስ አበባ ከተማ የሚገኙና የወሊድ ክትትል የሚያደርጉ ነፍሰጡሮች በአገልግሎት ሰጪው አነሳሽነት የሚሰጡ የኤች. አይቪ. ምርመራና የምክር አገልግሎት እንዲጠቀሙ የሚያበረታቱባቸው ሁኔታዎች

መግቢያ

ኤች አይቪ ኤድስ፣ በአለማችን አስከሬ ከሚባሉና የብዙዎችን ህይወት ከቀጠፉ ወረርሽኞች አንዱ ሆኖ ቆይቷል። በአመት እስከ 420,000 የሚደርሱ ህፃናት በኤች አይቪ ሲጠቁ ዋነኛው የመተላለፊያ መንገድ ከናት ወደልጅ ባለው ግንኙነት አማካኝነት ነው። ከላይ ከተጠቀሰው አሃዝ ውስጥ ሰፊውን ሽፋን የሚይዙት ደግሞ ከሰሀራ በታች ያሉት አገሮች ናቸው።

ከላይ እንደተጠቀሰው በሽታው ከሚስፋፋባቸው ዋነኛ መንገዶች አንዱ ከናት ወደ ልጅ ባለው ግንኙነት ሲሆን ፤እነዚህም በእርግዝና ወቅት፣ በወሊድ ወቅት፣ እና ጡት በማጥባት ወቅት ናቸው። ኢትዮጵያ ውስጥ በሀገር አቀፍ ደረጃ 28 በመቶ ያህል ነፍሰጡር ሴቶች

የወሊድ ክትትል የሚያደርጉ ሲሆን፣ 6 በመቶ ያህሉ በጤና ተቋማት ውስጥ ይወልዳሉ። በተመሳሳይ ሁኔታ፣ በአዲስ አበባ ከተማ ውስጥ 88.3 በመቶ ያህሉ ነፍሰጡር ሴቶች የወሊድ ክትትል የሚያደርጉ ሲሆን 79 በመቶ ያህሉ በጤና ተቋማት ውስጥ ይወልዳሉ። ይህም ሆኖ በአገራችን በአገልግሎት ሰጪው አነሳሽነት የሚሰጥ የኤች አይቪ ምርመራና የምክር አገልግሎት በወሊድ ክትትል በሚያደርጉ ነፍሰጡሮች ዙሪያ እጅግ አናሳ (50 በመቶ ብቻ) ነው። የሌሎችን አገሮች ያየን እንደሆነ ይህ አገልግሎት ከ 64 - 83 በመቶ የሚደርስ ሲሆን ከእነዚህም ውስጥ 30 በመቶ ያህሉ ብቻ ኤች አይቪ በደማቸው የሚገኙ እናቶችና ህፃናት ከናት ወደልጅ የመተላለፍ ችግር

ለመከላከል የእድሜ ማራዘሚያ (ARV) ህክምና ይወስዳሉ።

ኤች አይቪ ከናት ወደልጅ እንዳይተላለፍ ለመከላከል ነፍሰጡር ሴቶች ኤች አይቪ በደማቸው ውስጥ መኖር አለመኖሩ መታወቅ ይኖርበታል። የፌደራል ጤና ጥበቃ ሚኒስቴር ማንኛውም ነፍሰጡር ሴት በአገልግሎት ሰጪ አነሳሽነት የሚደረግ የኤች አይቪ ምርመራና የምክር አገልግሎት (PIHTC) በስፋት መሠጠት እንዳለበት ያስገነዝባል። ነገር ግን ይህን አገልግሎት በስፋት እንዳይሰጥ የሚያደናቅፉ በርካታ ሁኔታዎች አሉ። ከዚህ በፊት በተሰሩ የብቃት ሪፖርቶች መሰረት የወሊድ ክትትል የሚያደርጉ ሴቶች ይህን አገልግሎት (PIHTC) በስፋት እንደሚይጠቀሙና ላለመጠቀማቸው ምንክንያቶች ተብለው ከተዘረዘሩት መካከል፤ ያገልግሎቱ በነጻ ያለመስጠት እና የተደጋጋሚ ቀጠሮዎች አሰልጣኝነት ጥቂቶቹ ናቸው። ይህ ጥናት፤ ከላይ የተጠቀሱትን ሁኔታዎች ከግምት በማስገባት በወሊድ ክትትል ላይ ያሉ ነፍሰጡሮች በአገልግሎት ሰጪው አነሳሽነት የሚሰጡ የኤች አይቪ

ምርመራና የምክር አገልግሎት ተጠቃሚ እንዳይሆኑ እክል የሚፈጥሩባቸውን ሁኔታዎች ለማየት ይሞክራል።

የጥናቱ ዘዴ

የጤና ተቋማትን መሰረት ያደረገ እና በአንድ የጊዜ ገደብ የተወሰነ የአጠናን ዘዴ የዚህ ጥናት ዋነኛ መንገድ ነው። ይህን ዘዴ ተንተርሶ የሁለት ደረጃ ናሙና አወሳሰድ ስልት (Two stage sampling) በመጠቀም ከህዳር 28 እስከ ታህሳስ 24 2008 ናሙና ለመውሰድ ተሞክሯል።

ጥናቱ የተካሄደባት የአዲስ አበባ ከተማ 2.7 ሚሊዮን ነዋሪዎች (48.4 በመቶ ወንዶች እና 51.6 በመቶ ሴቶች) በውስጧ ይገኛሉ።በዚህ የጥናት ዳራ ውስጥ የናሙና አወሳሰድ ሂደት የተከናወነው የነጠላ ምጥጥኖሽ (single population proportion) በመጠቀም ነው። በአጠቃላይ የተወሰደው ነባራዊ የናሙና መጠን 427 ሲሆን ይህን አሀዝ በሁለት በማብዛት 854 ተሳታፊዎች እንደተሳተፉ ተቆጥሯል።

በዚህ ጥናት ውስጥ 50 በመቶ የፒ ቫልዩ እና 95 በመቶ የእርግጠኝነት ደረጃ

(confidence level) በስራ ላይ ውለዋል።

በጥናቱ ወቅት 34 የመንግስት እና ሁለት መንግስታዊ ያልሆኑ ድርጅቶች ክሊኒኮች በአገልግሎት ሰጪ አነሳሽነት የሚካሄድ የኤች አይቪ ምርመራና የምክር አገልግሎት ይሰጡ እንደነበር ታውቋል። ሚስጢር ለመጠበቅ ሲሉ የነፍሰጡሮቹን መረጃ ለመስጠት ፈቃደኛ ያልሆኑ 3 የፌደራል ሆስፒታሎች ከጥናቱ ውጪ ተደርገዋል።

ለመረጃ አሰባሰብ ስራ ስድስት ነርሶች ለአንድ ቀን ስልጠና አግኝተዋል። መረጃው ቃለመጠይቅ በመጠቀም ከእያንዳንዱ ፈቃደኛ ነፍሰጡር የተሰበሰበ ሲሆን፤ የአሜሪካኑ ደረጃውን የጠበቀ እና በክፍል የተቀናጀ መጠይቅ (semi-structured questionnaire) በስራ ላይ ውሏል።

ኤፒ ኢንፎ 6.04 እና ኤስፒ ኤስ ኤስ ቁጥር 15 በመጠቀም መረጃውን የማጥራት እና የመተንተን ሥራ ተሰርቷል።

የስነምግባር ማረጋገጫ፤ ከጎንደር

የማህበረሰብ ጤና ክፍል እና ከአዲስ አበባ ከተማ መስተዳድር ቢሮ

ለመውሰድ ተሞክሯል። ከዚህ በተጨማሪ የጥናቱን አላማ በማስረዳት ከእያንዳንዱ የጥናቱ ተሳታፊ የቃል ፈቃደኝነት ለማግኘት ተችሏል።

የጥናቱ ውጤት

የጥናቱ ተሳታፊዎች ማህበራዊና ዲሞክራራያዊ ሁኔታ በሰንጠረዥ 1 በዝርዝር ለማስቀመጥ ተሞክሯል።

ሰንጠረዥ 1 የተሳታፊ ነፍሰጠሮች ማህበራዊና ዲሞግራፊያዊ ሁኔታዎች

ተለዋጭ ባህሪያት	ድግግሞሽ	በመቶ
እድሜ		
15 - 24	332	38.9
25 - 29	467	54.8
≥ 35	209	24.5
የጋብቻ ሁኔታ		
ያላገቡ	57	5.7
ያገቡ	760	89.0
የተፋቱ	15	1.8
የተለያዩ	16	1.9
በሞት የተለያዩ	6	0.7
በሃይማኖት		
አርቶዶክስ	628	73.5
ካቶሊክ	9	1.1
ፕሮቴስታንት	100	11.7
እስልምና	112	13.1
ባህላዊ	2	0.2
ሌሎች	3	0.4
የትምህርት ደረጃ		
ያልተማሩ	129	15.1
ከ 1 — 12 ክፍል ያጠናቀቁ	538	63.0
ሰርትፊኬት	124	14.5
ዲፕሎማ	58	6.8
ዲግሪ እና ከዛ በላይ	5	0.6

ኤች አይቪን በመከላከል ዙሪያ ያለ የተሳታፊዎች እውቀት

የጥናቱ ተሳታፊዎች በኤች አይቪ መከላከል ዙሪያ ያላቸውን እውቀት ለማየት በተደረገው ሙከራ መሰረት ከሞላሳገደል ተሳታፊዎቹ በሙሉ (99.5 በመቶ) በኤች አይቪ ዙሪያ እውቀት ነበራቸው። ነገር ግን 96 (23.1 በመቶ) ያህሉ ብቻ ጥልቅና የተቀናጀ እውቀት ነበራቸው። ከተሳታፊዎቹ 507 (59.8 በመቶ) ያህሉ መታቀብ ኤች አይቪን ለመከላከል እንደሚረዳ ያውቃሉ።

በተመሳሳይ ሁኔታ ከተሳታፊዎቹ 624 (73.4 በመቶ) ያህሉ አንድ ለአንድ በመተማመን በመቆየት በሽታውን መከላከል እንደሚቻል ያውቃሉ።

የወሊድ ክትትል የሚያደርጉ ነፍሰጠሮች በኤች አይቪ ዙሪያ ያላቸውን አተያይ ለመመዘን የሚከተለው ሰንጠረዥ ቀርቧል።

ተለዋጭ ባህሪያት እና መልሶች	ድግግሞሽ	በመቶኛ
የኤች አይቪ በደማቸው ያለባቸው ሰዎች ሊያፍኑ ይገባል		
እስማማለሁ	26	3.1
አልስማማም	824	96.9
አላውቅም	0	0.0
ጠቅላላ	850	100.0
ባለፉት 12 ወራት ኤች አይቪን ለመከላከል ሞክረሻል		
አዎ	301	35.4
አይደለም	516	60.7
አላውቅም	33	3.9
በህይወት ዘመንሽ ከምን ያህል ወንዶች ጋር ወሲብ ፈጽመሻል		
1	434	50.8
2 -7	257	30.1
አላውቅም	163	19.1
የኤች አይቪ ምርመራ አድርገሽ ታወቁያለሽ		
አዎ	619	72.8
አላደረሁም	231	27.2
የምርመራ ውጤትሽን አግኝተሽል		
አዎ	488	78.3
አላገኘሁም	135	21.7
ጠቅላላ	623	100.0

የኤች አይቪን ምርመራ የማድረግ ፈቃደኝነትን የሚያደናቅፉ ሁኔታዎች ለማየት በተደረገው ሙከራ መሰረት የመጀመሪያው የወሊድ ክትትል፣ በእድሜ ዘመን የወሲብ ጓደኞች ብዛት እና ከዚህ ቀደም ምርመራ የማካሄድ ከጉዳዩ ጋር ትስስር አላቸው። በመጀመሪያው የወሊድ ክትትል ምርምራና በወሲብ ጓደኞች መብዛት መካከል የተገላቢጠሽ ትስስር (negative correlation) የታየ ሲሆን የመጀመሪያ የኤች አይቪ ምርመራ ከመቀበል ጋር ግን ቀጥተኛ ትስስር (positive association) አሳይቷል።

የጥናቱ ትንተና

በዚህ ጥናት ውጤት መሰረት የኤች አይ ቪ ምርመራ እና ውጤቱን የመቀበል መጠን በቅድም ተከተል 94.8% እና 83.6% ሆነው ታይተዋል። በአገር አቀፍ ደረጃ ያለው የብቃት ውጤት ያየን እንደሆነ እጅግ አንሶ ይታያል (55 በመቶ)። ይህ የአሀዘ ልዩነት ከመጣባቸው ዋና ምክንያቶች አንዱ የ ኬዞች (cases) በትክክል ሪፖርት የማድረግ ሂደት ሊሆን ስለሚችል የሪፖርት አድራሪ ሂደት፣ ለፕሮግራም ቀረባ፣ ለእቅድና ግምገማ መሰረት እደመሆኑ መጠን ማሻሻያ ሊደረግበት ይገባል።

ከዚህ በተጨማሪ በዚህ ጥናት ውስጥ የታየው ከፍተኛ የኤች አይቪ ምርመራ ፍላጎት በአገልገሎት ሰጪ አካላት የሚደረግ ምርመራ መስፋፋቱን የሚያመለክት ይሆናል። ይህ መስፋፋት ደግሞ ከናት ወደልጅ የቫይረሱ መተላለፍ ሂደት ለመከላከል የሚሰሩ ሥራዎችን በስፋት ለማካሄድ ጥሩ አጋጣሚ ይሆናል።

በዚህ ጥናት ውስጥ የእድሜ ልዩነት ኤች አይቪ ምርመራን ከመቀበል አለመቀበል ጋር ዝምድና አሳሳዩም ነገር ግን በሌላ ጥናቶች በታየው ውጤት መሰረት እድሜና ምርመራውን የመቀበል እና ያለመቀበል ጉዳዮች ከፍተኛ ትስስር አሳይተዋል።

ምንም እንኳን በዚህ ጥናት ውስጥ የኦርቶዶክስና የእስልምና እምነት ተከታዮች ምርመራውን በስፋት የመቀበል ዝንባሌ ቢያሳዩም ይህ ዝምድና ጎልቶ የወጣ አይደለም። ይህ የሆነበት ምንምም በርካታ በጥናቱ የተወከሉ ተሳታፊዎች የኦርቶዶክስ እምነት ተከታዮች በመሆናቸው ይሆናል።

የሁለተኛ ደረጃ ትምህርት በመጨረስና ምርመራውን በመቀበል መካከል ጉልህ ከዚህ በተጨማሪ በዚህ ጥናት ውስጥ

ያልሆነ ዝምድና ታይቷል። ይህ ውጤት ከዚህ በፊት ከተጠኑ ጥናቶች ውጤቶች ጋር ልዩነት አሳይቷል።

በዚህ ጥናት ውስጥ ያገቡ ሴቶች ካላገቡት ይልቅ ምርመራውን የመቀበል ዝንባሌ አሳይተዋል። ይህ ውጤት ለበሽታው ተጋላጭነት ሁኔታ ከመቀነስ ጋር ያገቡ ሴቶች ያላቸውን የአስተሳሰብ ለውጥ ያሳያል። በአገር አቀፍ ኢዲኤችኤስ (EDSH) ውጤት መሠረት ያገቡ ወይም አንድ ዓይነት ያላቸው ወዶች ካገቡት ይልቅ የበሽታው እውነታ የቀበላሉ። በተቃራኒ ያገቡ ሴቶች ካላገቡ ይልቅ በሽታውን ያለመፍራት ሁኔታ እደሚታይባቸው የአገራዊው ጥናት አመላክቷል።

በሌላ በኩል ከአንድ በላይ የወሲብ ጓደኛ ያላቸው ሴቶች በ2 እጥፍ ከአንድ በላይ ጓደኛ ከሌላቸው ሴቶች ይልቅ ምርመራውን ያለመቀበል ሁኔታ አሥይተዋል። የወሲብ ጓደኛ ብዛት ምርመራን ካለመቀበል ጋር ትስስር ቢኖረውም ውጤትን ካለመቀበል ጋር ምንም ዝምድና አልታየበትም።

ማጠቃለያ

በዚህ ጥናት ውጤት መሠረት፣ በወሲብ ክትትል ላይ ያሉ እና የአዲስ አበባ ነዋሪ ነፍሰጡሮች ኤች አይቪ ምርመራን የመቀበላቸው ሁኔታ ከአመታዊ የስራ ብቃት ውጤት ሪፖርት

ጋር ሲነፃፀር ከፍተኛ ሆኖ ታይቷል።

ይህ ልዩነትም የታየበት ምክንያት በሪፖርት አደራረግ ሂደት ላይ ያለው ድክመት ሊሆን እደሚችል ይገመታል።

በጠቅላላው የኤች አይ ቪ ምርመራን ላለመቀበል እክል ከሚፈጥሩ ሁኔታዎች መካከል የወሲብ ክትትል ምርመራዎች ብዛት፣ የህይወት ዘመን የወሲብ ጓደኞች ብዛት፣ በኤችኤቪ ዙሪያ ያለ እውቀት መጠን ፣ ከዚህ በፊት የተደረጉ ምርመራዎች ብዛት፣ እና ከዚህ በፊት የተደረጉ ምርመራዎችን ውጤት አለማወቅ ዋናዎቹ ሆነው ወጥተዋል።

በዚህ ውጤት መነሻነት ሁኔታውን ያማከለ የመረጃ፣ ትምህርት የመግባቢያ፣ እዲሁም በባህሪ ዙሪያ በሚያጠነጥኑ ዘዴዎች የተደገፈ የኤች አይ ቪን መካከል ትምህርት በስፋት በመስጠት ያስፈልጋል። ከዚህ በተጨማሪ የትዳር ገንደኞችን ያካተተ የኤች አይ ቪ ምርመራና የምክር አገልግሎት ማስፋፋት በሽታውን በጥልቀት ከመከላከል አኳያ ጉልህ ድርሻ ይኖረዋል።

Highlights on Prevention, Care and Support

Kidney Disease In People With HIV – Part 1: Overview



Kidney disease is a common problem for people with HIV, particularly as they get older. Depending on how severe the kidney disease is, a variety of options are available, ranging from diet changes to a kidney transplant. Some choices, such as a kidney transplant, were once thought to be too risky, but are now increasingly available to people with HIV. Growing rates of kidney disease and other chronic conditions

are both good news and bad news for people with HIV. Highly active antiretroviral therapy (HAART) has been very effective in prolonging life spans and decreasing mortality from HIV and other related diseases. However, this also means that HIV-positive individuals are now more likely to die of chronic diseases, such as kidney disease. “Organ failure is increasingly the cause of [death] in HIV-infected individuals, as improvements in antiretroviral therapy have led to longer life spans and much less death due to opportunistic disease,” says Dr. Jonah Odum, a medical officer in NIAID’s Division of Allergy, Immunology and Transplantation

and Dr. Larry Fox, a medical officer in NIAID's Division of AIDS, in correspondence with The AIDS Beacon.

Kidney disease is estimated to affect about 30 percent of people with HIV and cause more than 10 percent of HIV-related deaths.

What Is Kidney Disease?

The kidneys perform the necessary functions of regulating the body's fluids and filtering the blood to eliminate waste products and toxic substances.

Kidney disease occurs when the kidneys lose the ability to perform these functions. As a result, water, waste, and toxins build up in the body. Chronic kidney disease is defined by evidence of kidney damage or decreased kidney function for at least three months.

There are five different stages of kidney disease, based on how well or poorly the kidneys

are working. The fifth and final stage is referred to as end stage renal (kidney) failure (ESRF) or sometimes just kidney failure. When patients are in ESRF, their kidneys shut down and are almost completely unable to function properly.

Kidney disease can cause other health conditions such as heart disease, nerve damage, bone disease, and anemia (a decrease in red blood cells that prevents the body from getting enough oxygen).

People with HIV are at an increased risk of kidney disease because the virus interferes with the kidneys' ability to function correctly. People with advanced HIV who have a low CD4 (white blood cell) count and a high viral load (amount of virus in the blood) are at greater risk for developing kidney disease.

Older people with HIV are also at greater risk of kidney disease.

Symptoms

Some symptoms of kidney disease may include:

- Urinating pale urine more often than usual, darker urine less often, or urinating foamy, bubbly or bloody urine
 - Difficulty urinating, or waking often at night to urinate
 - Swelling in the legs, feet, ankles, face, and hands
 - Excess fatigue
 - Itching or rash
 - Shortness of breath
 - Lack of appetite or a metallic taste in the mouth
 - Nausea and vomiting
 - Fainting, dizziness, or difficulty concentrating
 - Feeling excessively cold
- Leg, back, or side pain.

Causes

The two most common causes of kidney disease are high blood pressure (hypertension) and diabetes, a condition in which the body cannot properly manage its blood sugar levels. Certain factors beyond a patient's control, such as family history, premature birth, and trauma or injury may be factors in kidney disease. African-Americans and Hispanics are also at higher risk of kidney disease.

HIV itself can cause damage to the kidneys, called HIV-Associated Nephropathy. It is thought to be caused by the virus infecting and damaging cells in the kidneys. Kidney damage from HIV can occur even in people taking antiretroviral drugs.

Medications for HIV and HIV-related health problems are also harsh on the kidneys and

may, over time, contribute to kidney disease.

Antiretroviral drugs that have been associated with kidney disease include Viread (tenofovir), Crixivan (indinavir), Reyataz (atazanavir), and possibly Kaletra (lopinavir/ritonavir). Selzentry (maraviroc) is not recommended for people with severe kidney disease or ESRF.

Other medical conditions that may increase the risk of kidney disease are hepatitis C infection; kidney stones, which cause the urinary tract to become blocked; glomerulonephritis, an inflammatory immune response to infections such as strep throat that can damage the kidneys; and allergic reactions to antibiotics such as penicillin and vancomycin.

The use of drugs such as heroin and cocaine and excessive use of painkillers containing ibupro-

fen (Advil, Motrin), naproxen (Aleve), aspirin, or acetaminophen (Tylenol) may also contribute to kidney disease.

Diagnosis

There are several tests used to determine if a person has kidney disease. The most common are blood and urine tests that measure kidney function.

Blood tests monitor blood pressure (which can increase in people with kidney disease) and the amount of a substance called creatinine in the blood. Creatinine is a waste product of metabolism and should be filtered from the blood by the kidneys.

High creatinine levels in the blood can indicate kidney dysfunction.

Urine tests monitor the levels of protein in the urine. When the kidneys are not functioning well, proteins start to build up

in the urine, along with red and white blood cells. If high protein levels or blood cells are found in the urine, this also usually indicates kidney disease.

Additional tests might include an ultrasound, MRI, or CAT scan to image the kidneys. In some cases a kidney biopsy might be performed, in which a small piece of the kidney is taken and examined under a microscope.

According to the National Kidney Foundation, people with HIV who have any additional risk factors for kidney disease should be tested for kidney disease at least once a year.

**Part 2: Treatment
Dietary Supplements May
Increase Longevity Of HIV**

HIV positive individuals may find long term benefits from using dietary supplements in combination with antiretroviral medication.

A midterm report of a study conducted by the Tamil Nadu State AIDS Control Society showed that body mass index and hemoglobin count improved in HIV positive individuals that used nutritional supplements with antiretroviral therapy.

Body mass index is a calculation of percentage of body fat, and

hemoglobin levels are proteins in red blood cells that carry oxygen.

Low body mass index and low hemoglobin levels are often problematic in those with HIV. Low hemoglobin levels can increase the risk of developing anemia, a condition in which red blood cells and hemoglobin in the blood are below normal. Anemia can often be caused by shortage of iron, vitamin B12, or folic acid.

According to a study published in the Journal of Acquired Immune Deficiency Syndromes, over 50 percent of people with HIV use alternative therapies, such as herbal medicines and dietary supplements. Research has shown that B vitamins, selenium, and spirulina are three supplements that can be beneficial for

HIV patients.

Vitamin B

Vitamin B12 deficiency has been associated with decreasing CD4+ cells, which are white blood cells that help fight infection in the body. Some studies have shown that without supplements, up to 95 percent of those with HIV may have B12 deficiencies. Vitamin B6 has also been shown to improve CD4+ cell counts.

According to the Mayo Clinic, vitamin B12 can be obtained from eating one chicken breast, one hard boiled egg, and one cup of plain non-fat yogurt daily.

Selenium

Selenium also helps strengthen the immune systems by creating antioxidants that protect the body from invaders that may damage cells. Eating foods and supplements with antioxi-

dants are beneficial for HIV positive individuals. Beans, blueberries, blackberries, and cranberries have high levels of antioxidants.

In a study published in Archives of Internal Medicine, the supplement selenium was found to reduce the amount of HIV in the blood and increase CD4+ cell levels.

Participants who took 200 micrograms of selenium daily for nine months had a 12 percent decrease in viral loads. Participants in the control group, who were not given selenium, experienced increased viral loads and decreased CD4 levels in the same nine month period of time. Brazil nuts, tuna, and beef are common foods that contain selenium.

Brazil nuts are the highest with up to 544 micrograms per ounce.

However, because of the high presence of this supplement, it is recommended that people watch their intake of these nuts.

Spirulina

Spirulina has also been proven beneficial by multiple research studies. Spirulina is blue – green alga that contains vitamin A, vitamin B1, B6, B12, vitamin C, proteins, and minerals.

A study published in the Journal of Acquired Immune Deficiency Syndromes found that the use of spirulina inhibited HIV replication in the blood. Taking extract concentrations between 0.3 and 1.2 micrograms per milliliter reduced viral production by about 50 percent.

General Information

Since HIV itself can damage the kidneys, doctors usually recommend that people with HIV and

kidney disease start and/or continue a highly active antiretroviral therapy (HAART) regimen to suppress the virus and slow disease progression.

People with mild kidney disease can often make lifestyle changes to help prevent further damage to the kidneys. Seeing a dietitian to create a low-protein diet plan, for example, can promote prolonged kidney function. Patients with kidney disease should also quit smoking, limit caffeine intake, and avoid certain pain medications that contain ibuprofen (Advil, Motrin) or naproxen (Aleve) to avoid exacerbating kidney damage.

Lowering the risk of high blood pressure and diabetes can also help slow the progression of kidney disease. Patients can improve their blood pressure by losing excess weight through

exercise and by maintaining a diet that is low in sodium and fat.

If needed, there are medications that control blood pressure, including angiotensin converting enzyme (ACE) inhibitors, such as captopril (Capoten) and enalapril (Vasotec); angiotensin receptor blockers (ARBs), such as Diovan (valsartan) and Cozaar (losartan); and calcium channel blockers and beta blockers.

Before starting any new medications, however, patients should always talk to their doctors to make sure that there are no dangerous drug interactions with their current antiretrovirals.

If kidney disease progresses to end stage renal failure (ESRD), also known as kidney failure, dialysis or a kidney transplant is needed.

Treatment: Dialysis

Dialysis is a procedure in which the blood is filtered by medical equipment, bypassing kidneys that can no longer perform their normal filtering function.

There are two main types of dialysis: hemodialysis and peritoneal dialysis. In hemodialysis, the blood is cleansed outside the body by a machine/device that acts like the kidneys. In peritoneal dialysis, the blood is cleansed inside the body with a device inserted through surgery. Hemodialysis takes place three times a week in a dialysis center or, less commonly, at home.

Two needles are inserted into the arm, one to take the patient's blood to the hemodialysis machine where it is filtered and the other needle to return the cleaned blood to the patient.

The procedure takes approximately 2.5 to 4.5 hours.

Blood tests should be administered about once a month to ensure that dialysis treatments are working.

Although hemodialysis requires minimal participation by the patient, it requires a more rigid diet and fluid control. Filtration is less frequent than in peritoneal dialysis, so waste and fluid can build up, causing side effects like high blood pressure. Hemodialysis patients also have an increased risk of heart and blood vessel disease and anemia, and it is a more expensive treatment than peritoneal dialysis.

In peritoneal dialysis the patient's own abdomen is used to filter the body's blood. A tube, called a peritoneal dialysis catheter, is permanently inserted into the patient's abdomen. The catheter allows fluid to pass in and out of the abdominal cavity.

The patient usually administers the treatment him or herself. After sterilizing the abdomen and catheter entrance, the patient hooks a bag of fluid to the catheter and allows the fluid to drain into the abdominal cavity. The fluid, which draws in waste and excess water, is removed and replaced with fresh fluid after approximately four to six hours.

This treatment is done four or five times daily and can be performed at a patient's home without a machine. This process is formally called continuous ambulatory peritoneal dialysis.

There is another form of peritoneal dialysis, called continuous cycler-assisted peritoneal dialysis, which requires a machine called a cycler to fill and drain the patient's abdomen.

Advantages of peritoneal dialysis are that it can be performed

at home and at a patient's convenience. However, peritoneal dialysis puts patients at a greater risk of infection. Proper sterilization and clean equipment is necessary to prevent infection around the catheter and inside the abdomen.

Some dialysis health risks include insomnia, stiffness and pain in the joints and tendons from a condition called dialysis-related amyloidosis, itching, bone disease, and anemia (a decrease in red blood cells).

People with HIV who are on dialysis may also need to have the dosages of some antiretrovirals adjusted. Certain anti-HIV drugs are primarily excreted by the kidneys and may not be removed from the bloodstream as effectively by dialysis.

The Issue

Starting antiretroviral treatment in children with HIV

There is a complex balance between the immediate benefits of providing treatment to children who are not showing any symptoms of AIDS-related illness, and concerns about long-term resistance and antiretroviral drug side effect if treatment is started too early.

CD4 counts in children

To judge whether an HIV-positive person requires treatment, a CD4 test is usually carried out. This measures the number of T-helper cells – white

blood cells that are attacked by HIV in an individual's blood. It can either measure the absolute number of CD4 cells, or the percentage of white blood cells that are CD4 cells, in a sample of blood.

A falling CD4 count is a sign that HIV is progressing, and that the immune system is becoming weaker. However, it is difficult to judge the health of a child's immune system based on CD4 count. Absolute CD4 counts vary with age, and younger children usually have a much higher CD4 count than adults. Percentage CD4 count on the other hand does not vary in the same way as absolute CD4 count, and is therefore recommended for children under five.

In some cases, viral load testing (which measures the amount of HIV in an individual's blood) is

used alongside CD4 testing to guide decisions about treatment.

Starting treatment based on clinical symptoms

In resource-poor communities, the technology needed for CD4 counts and viral load testing is not always available. In the absence of these facilities, health-care workers sometimes have to make a presumption that a child should begin treatment based on their stage of HIV infection as defined by a range of cancers and infections that are present.

When to start treatment

The World Health Organization (WHO) now recommends that all diagnosed infants and children less than two years of age should begin antiretroviral therapy regardless of the child's clinical or immunological stage.

(Children under 12-months with clinically diagnosed presumptive severe HIV should also begin treatment, but confirmation of infection should be obtained as soon as possible.)

The children with HIV Early Antiretroviral Therapy (CHER) study of infants (aged six-to-twelve weeks) in South Africa compared the outcomes of those starting limited treatment immediately with those deferring treatment until CD4 percentage dropped below certain levels or if symptomatic and severe disease occurred. (The study's criteria for deferred treatment were only slightly different from South African or WHO guidelines.) It found the

risk of death for infants who began treatment immediately was 76% lower than the deferred treatment group.

The USA recommends treatment for all infants with HIV, regardless of CD4 percentage, clinical status or viral load. The 2009 guidelines produced by the Paediatric European Network for Treatment of AIDS (PENTA) also advocate treatment for all infected children under 12 months regardless of clinical or immunological stage. Other countries' guidelines may be revised to reflect WHO recommendations and the CHER study's findings.

While there is an emerging consensus on initiating therapy immediately in infected infants, there is ongoing debate as to when treatment should begin in young children. According to US and PENTA guidelines treatment is recommended if significant

symptoms are evident or percentage CD4 count has decreased to below 20-25% for children aged between one and five years. WHO 2010 recommendations suggest the initiation of ART for all HIV-infected children between two and five years with either a CD4 count of 750 or below, or a CD4 percentage of 25 or below, whichever is lower, irrespective of clinical status. Arguments for earlier treatment include: evidence that disease progression is faster in young children; that there is an association between severe HIV disease and persistent neurocognitive deficits in adolescent long-term survivors of prenatally acquired HIV; and that ART can reduce TB, encephalopathy and bacterial infections that occur even at high CD4 levels, as well as improve physical growth.

Advocates for earlier treatment also point to studies showing that the risk of disease progression is identical between adults and over-5s so it follows that any argument for earlier initiation in adults should also apply to older children. Arguments for deferring treatment include a lack of information on the long term effect of doing so, and the additional cost and burden of adherence due to a longer overall period of treatment.

Which antiretroviral drugs should be used?

As with adults, antiretroviral therapy with at least three drugs is recommended for children as this prevents HIV from becoming resistant to any single drug. It is usually recommended that this therapy should consist of two nucleoside reverse transcriptase inhibitors (NRTIs) combined with either one non-

nucleoside reverse transcriptase inhibitor (NNRTI) or a protease inhibitor (PI). If a child has been exposed to NNRTIs during treatment to prevent mother-to-child transmission (common in most PMTCT interventions in developing countries) then his or her treatment should contain PIs. However, this not really feasible in most countries where the need for this treatment is greatest as PIs are expensive and have special storage requirements.

There are many factors that can influence the choice of drugs for children. Considerations about medications that the mother may have received during pregnancy, the toxicity of certain drugs, and whether the child is still breastfeeding, all need to be taken into account when choosing a regimen.

Definitions of medical terms related to HIV/ AIDS, STIs and TB

Dear readers, this section is believed to provide easily consumable meanings and definitions of medical terms specifically related to HIV/AIDS, STIs and TB. The editors of this digest believe this section would enlighten readers with such medical terms with simple and comprehensible language and support their daily routines.

Neuropathy

A disorder that occurs when nerve cells are damaged. Symptoms range from a tingling sensation or numbness in the toes and fingers to paralysis. Neuropathy can occur as a result of HIV infection or as a side effect of certain anti-HIV drugs.

Photosensitivity

Increased sensitivity of skin to sunlight or ultraviolet light. Photosensitivity commonly causes reddening and blistering of the skin and in time increases a person's risk of skin cancer. Photosensitivity may occur as a side effect of some drugs or as a result of HIV infection.

Provirus

A DNA version of HIV's genetic material that has been integrated into the host cell's own DNA.

Viral Load

The amount of HIV RNA in a blood sample, reported as number of HIV RNA copies per mL of

important indicator of HIV progression and how well treatment is working. The VL can be measured by different techniques, including branched chain DNA (bDNA) and reverse transcriptase-polymerase chain reaction (RT-PCR) assays. VL tests are usually done when an individual is diagnosed with HIV infection and at regular intervals after diagnosis.

Virologic Failure

Inability of anti-HIV drug treatment to reduce viral load or to maintain suppression of viral load. Virologic failure is the most common type of treatment failure and may lead to immunologic and clinical failure.

Toxoplasmosis

An infection caused by the parasite *Toxoplasma gondii*. The parasite is carried by cats, birds, and other animals, and is also found in soil contaminated by cat feces

and in meat, particularly pork. Infection can occur in the lungs, retina of the eye, heart, pancreas, liver, colon, testes, and brain. Toxoplasmosis of the brain is considered an AIDS-defining condition in people with HIV.

Tolerability

Term used to indicate how well a particular medication is tolerated or endured when taken by people at the usual dosage. Good tolerability means that medication side effects don't cause people to stop using the drug.

Treatment Failure

A broad term describing failure of an anti-HIV treatment to adequately control HIV infection. The three types of HIV treatment failure are virologic, immunologic, and clinical failure. Factors contributing to treatment failure include poor adherence, drug resistance, and drug toxicity.

Western Blot

A laboratory technique used to detect a specific protein. A Western blot test to detect HIV proteins in the blood is used to confirm a positive HIV antibody test (ELISA).

Invitation

Dear readers,

Ethiopian Public Health Association as usual decently calls readers of this PH Digest to ahead your valuable suggestions and comments which significantly makes difference on the quality of the Digest. Likewise the editors solicit researchers and health professionals to provide your research endeavors which will play key roles in providing substantial and up-to-date information for those who are engaged in safekeeping of the public health.

Glossary

- Adjusted Odds Ratio (AOR):- በስ ትስቲክስ የጥናት ስልት መሰረት ሌሎች ክስተቶችን በመቀነስ የተስተካከለ የተጋላጭነት የወ.ጤት መመዘኛ ነጥብ ማሳያ ዘዴ ነው።
- Abdominal Obesity :- ሆድ አካባቢ የሚከሰት ውፍረት
- Coexist :- የጎንዮሽ በሽታ
- Cases :- ጥናቱ የሚደረግባቸው ክፍሎች
- Controls :- በጥናቱ ናሙና ከተካተቱት ቡድኖች የሚገኙ ውጤቶችን ለማነፃፀር የሚያገለግል የጥንቱ አንዱ ክፍል
- Confidence Interval :- የማስተማመኛ ዘዴ
- Confidence Level (CL):- የእርግጠኝነት ደረጃ
- Crude Odds Ratio (COR):- በስ ትስቲክስ የጥናት ስልት መሰረት
- ሌሎች ክስተቶችን በመቀነስ የተጋላጭነት የወ.ጤት መመዘኛ ነጥብ ማሳያ ዘዴ ነው።
- Dependent Variables:- ተፈ ሽ ወይም የተለዋዋጭነት ባህሪ
- Ethical Clearance:- ስነምግባር የተሞላበት ጥናት ስለመሆኑ ማረጋገጫ ሰነድ
- Epi-info:- ለጤና ነክ ጥናቶች የተዘጋጀ ፕሮግራም
- Independent Variables:- ለችግሩ ፈ ሽ /መንስዔ/ ወይም የለዋዋጭነት ባህሪ
- Multivariate Analysis:- ሁለገባዊ የስ ትስቲክስ የወ.ጤት ትንተና ስልት

- Multiple Logistic Regression:- በከፊል የተቀናጀ መጠይቅ ተደራቢ ችግሮች ከዋናዉ ችግር ጋር ያላቸውን አንድነትና ልዩነት ለማነፃፀር የሚጠቅም የስታስቲክ ስልት ነው።
- Negative Correlation :- የተገላቢጠሽ ትስስር
- Odds ratio:- ያልተስተካከለ የወ.ጤት መመዘኛ ነጥብ
- Overweight :- ከልክ ያለፈ ውፍረት
- Pretest:- ቅድመ ፍተሽ
- Proportion:- ምጥጥን
- Positive Association :- ቀጥተኛ ትስስር
- Qualitative Study:- የአይነት ወይም የሀተታዊ የመረጃ አሰባሰብ ዘዴ
- Ratio:- ስብጥር
- Random sampling:- በነሲብ የጥናት ተሳ ፊን የመምረጥ ስልት።
- Sampling techniques:- የናሙና አወሳሰድ ዘዴ
- Semi Structured Questioner :- በከፊል የተቀናጀ መጠይቅ
- Single population proportion:- ነጠላ የህዝብ ምጥጥን
- Statistical Package for Social Scince (SPSS):- የኮምፒውተር ፕሮግራም
- Sub themes :- ጎዕስ ርዕሶች
- Two population proportion:- ለሁለት የጥናት ቡድኖች የሚያገለግል የህዝብ ምጥጥን
- Two stage Sampling:- ሁለት ደረጃ የናሙና አወሳሰድ
- Variable:- ተለዋዋጮች
- Voluntery Counseling and Testing (VCT):- በበጎ ፈቃደኝነት ላይ የተመሰረተ የአች.አይ.ቪ. የደም ምርመራ
- Waist-hip-ratio :- የዳሌና የወገብ ምጥጥን

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