Die Renaissance van die Huisarts*
– Wyle Professor HW Snyman

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Curriculum vitae

Prof HW Snyman is aan elke dokter in SA goed bekend; hy is gebore in Potchefstroom, het sy voorgraadse mediese studies aan die Witwatersrand voltooi en toe in Gronigen (Nederland) verder studeer, en was sedert 1949 verbonde aan UP. As geneesheer, akademikus, en denker het hy diep spore getrap in sy vaderland sowel as in die buiteland. Hy was ook kultuurmens wat 'n groot bydrae vir die Afrikaanse taal en kultuur gelewer het. Sy voordragte is altyd aan sy toehoorders oorgedra in pragtige poëtiese taal, soos sy digbundel "Sestig Blare in My Hand" ook getuig. Maar vir die Algemene Praktisyn was Prof Hennie op 'n spesiale manier belangrik – dit was hy wat baie jare gelede reeds besef het (en andere tot die insig gelei het), dat die groot behoefte in die mediese beroep sentreer om die spesiaal en goedopgeleide algemene praktisyn. Dit was hy wat gewerk het daaraan dat Departemente van Huisartskunde aan Mediese Skole in die RSA gestig is om aan hierdie behoefte te voldoen – soos in hierdie artikel ook duidelik na vore kom. Met "Die Renaissance van die Huisarts" groet die huisartse van Suid-Afrika weereens hierdie besondere medikus.

**Keynote Address given at the first GP Congress Aug 1978, Johannesburg. Published here posthumously for the first time. This address shows how much ahead of his times the author was. The first department of Family Medicine in South Africa that was made possible by Hennie Snyman is now 22 years old.*

Editor

Summary

Medical science has no right of existence in its own, it is directly linked to the need of the suffering patient. This patient is more than his disease, and there is a rising need amidst all the spectacular scientific achievements, to approach man as a whole. Here the family physician is in the unique position to help the patient in his total life experience. There is a world-wide rebirth of the need to train GPs in this fundamental role in medicine, also in South Africa, and the author explains the type of training which is necessary and which should be done at new specific Departments of Family Medicine at all Medical Schools in the RSA: improve his scientific, professional understanding, help him grow as a whole person with feelings and imagination, and sharpen his moral ethics.

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KEYWORDS:
Physician, Family; Education, Medical, Graduate.

Augustusmaand is met ons, en vir diegene gevoelig vir die tekens van die tye in die natuur is daar bespeurbaar die beloftes en voorbodes van die voorjaar met die ontluikende groen en eerste blommeprag wat die herlewing en hernuwing van die natuur vir ons aanmeld.

Vir diegene wat trag om die tekens van die tye in die mediese beroep te lees, is daar ook te bespeur 'n hernuwing en herlewing in die fundamentele rol van die huisarts of gesinsarts.

Ek vind rede selfs om te praat van die Renaissance van die Huisarts

Reeds verskeie jare gelede het die Mediese Raad in hierdie verband stelling ingeneem met die verklaring dat na die Raad se oortuiging die huisarts die kerngroep van die mediese beroep is, en sal bly in sy fundamentele bydrae in die lewering van primêre sorg.

Ook by die publiek, so meen ek te bespeur, groei weer die oortuiging dat pasiënte hulle ten beste na die goedopgeleide huisarts kan wend vir hul deurlopende gesondheidsorg.

Een van die kern oorwegings in hierdie herlewende aansien is die belangrike feit dat die huisarts by uitnemendheid in die posisie is om die pasiënt as geheelmens binne sy lewensverband te leer ken en van hulp te wees. Wat bedoel ek met die term "geheelmens"? Die antwoord wil ek verskaf op beide 'n negatiewe en 'n positiewe wyse en dan wel nie ter wille van 'n woordespel nie, maar omdat dit ons siening van en benadering tot die Mens as ons pasiënt belig. Dit belig terselfdertyd ons beroepswyse asook die moreel-etiese grondslag van die belangrike verhouding tussen pasiëntmens en beroepsmens. Dit vestig ook die aandag op daardie dieperliggende en blywende waardes wat die gemeenskap aan ons beroepe toeken.

In die negatiewe benadering is daar die neiging om die mens te reduseer tot sy uiteindelike boustene, en dan die somtotaal daarvan te beskou as die ekwivalent van die lewende mens. Hy staan ontleed tot 'n selfstandige gees en 'n afsonderlike liggaam; die liggaam ontleed tot sisteme, tot organe, tot weefsels, tot selle; die selle weer ontleed tot hul onderdele

en die onderdele tot chemiese stelsels en die chemiese stelsels op hul beurt tot molekule en uiteindelik, atome. Onteenseglik moes ons met ons redefunksie - daardie funksie van wete wat beslag gee aan die wetenskap - op hierdie wyse op soek gaan en moet ons nog verder vors na die vermelde bestanddele van die mens om sodoende sy bou en funksie te begryp, om oorsaak en gevolg bloot te lê, en om die vermoë van uitkenning, dws die diagnostiek, te ontwikkel. Die ontwyfelbare nutswaarde van hierdie beproefde wetenskaplike werkswyse staan dus bo verdenking. Waarop ek wel moet wys is die skadusy, deur ons as die beoefenaars daarvan toebedeel: dan, wanneer die gevaarlike denkwyse van reduksionisme oorneem; dan wanneer ons, in die ban van hierdie reduserende denke, die mens as die eenvoudige rekenkundige somtotaal van sy bestanddele beskou en aanvaar. Die fout, en selfs die kwaad, daarin lê nie by die wetenskap of die werkswyse self nie, maar skuil in ons denkwyse wat daarmee skuld dra aan 'n onvolledige siening van die werklik funksionerende geheelbeeld, die geheelmens. Dat die reduksionisme as

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denkwyse 'n invloed uitoefen op ons bewuste en onbewuste beroepsbenadering, ly geen twyfel nie; dit kom tot uiting in talle gebruike, beklemtonings en woordkeuses. Ons reduseer bv talle van ons pasiënte tot sogenaamde *gevalle*, tot 'n *siektenaam* oftewel 'n *diagnose*, ten einde miskien selfs tot 'n *voorwerp*! Ons sê dan dit was 'n geval van leukemie of 'n geval van 'n kunsbeen. U kan sê dit is slegs 'n gerieflike manier van praat, maar dit openbaar die suigkrag van die reduksionistiese denkwyse, dit verminder die waarde van die geheelmens tot 'n manipuleerbare objek, dit werk verwerend op die volwaardige verhouding van pasiëntmens en beroepsmens. En dit

Die huisarts is by uitnemendheid in die posisie om die pasiënt as geheelmens te help

word deur ons pasiënte, in hul behoefte aan ons uitgelewer, wel in stilswye maar in wese as kwetsend aangevoel.

Teenoor hierdie analities-reduserende siening van die geheelmens, kan ons die funksioneel integrerende as die positiewe siening stel: nie aan die een kant 'n konkrete lyf (of soma), plus 'n vae siel (of psiges) nie, maar 'n lyfsielwese as 'n funksioneel geïntegreerde en onverdeelbare geheel. Die biologiese reëls, ingeskryf in ons gene, lei daartoe dat elke mens oorspronklik en eenmalig is, en verder dat hy, in teenstelling tot ander biologiese organismes, oor 'n bewuste bewussyn beskik. Die brein is deel van ons voortdurende evolusie om tot 'n hoogsspesifieke individu te ontwikkel. Die siel word dan gesien as 'n funksie van die liggaam, en veral van die senustelsel. Hierdie geheelmens wil ons dan sien binne sy besondere lewensverband. Bestudeer ek dus die bou en funksie van die geheelmens, dan is dit sy anatomie en sy fisiologie as lyfsielwese, insgelyks is dit die patologie of die diagnostiek of die behandeling van die geheelmens wat ter sprake en ter sake is. Dit is hierdie geheelmens in die gedaante van 'n lydende wat ons beroepshulp aanspreek. Ons woord pasiënt kom van die Latyn "patiens" wat juis dui op "die lydende." Hierdie daad van aanspreking deur die pasiënt is vir ons beroep sy ontstaanpunt en sy bestaansrede, en dit bly die wederkerende, immervernuwende groeipunt daarvan. Daarom kan ek sê: "gebore uit die mens se behoeftes is die geneeskunde in wese 'n dienswetenskap gerig op die mens as wentelpunt." Ons moet tot die besef kom dat ons wetenskap geen bestaansrede van sy eie het nie, dit is nie 'n vryswewende grootheid nie, dit is direk of indirek, onmiddellik of uiteindelik, gerig op die behoefte van die mens, dit is daarom in wese 'n dienswetenskap. Aldus daarin opgelei staan die huisarts, of gesinsarts, beskikbaar as die eerste raakvlak, as die vlak van primêre sorg vir die gemeenskap.

During the previous century with the upsurge of science, science and its method came to be seen as the key to all problems, the solution to all

Dis hierdie lydende geheelmens wat op ons beroepshulp aanspraak maak

conflicts, an all powerful method, an objective on its own; it virtually became an idol and we still feel the after effects of this. The rapid development of the natural sciences and technology has indeed made them a dominant influence in the life of the present generation but has raised the serious question of a sound relation between the material side of

human life and the spiritual side. For of all the things with which we have to deal, our human nature - the psychic component of the psychosomatic organism - is the most difficult, while at the same time the most important. And as science with its mechanistic approach eventually stood revealed as unable to solve the human equation, a spirit of disillusionment and disenchantment with that science and its approach set in. To quote the eminent historian Arnold Toynbee: "Technology gives us material power, and this is morally neutral; it can be used at will, for good or evil. The greater our material power, the greater our need for the spiritual insight and virtue to use our power for good and not for evil. Material power, that is not counter-balanced by adequate spiritual power, that is by love and wisdom, is a curse and not a blessing." "My hope" says Toynbee "is that we shall see a period of technological slowing down and a new wave of spiritual advance."

It has thus become evident that there is a rising need to view, approach, and study man as a whole. It is this emphasis that has been embodied in the preamble to the Minimum Curriculum for Medicine from which

Die Latyns vir pasiënt dui op "die lydende"

I quote: "The emphasis in teaching should be on instruction in fundamental principles and methods of promoting understanding, rather than on the imparting of purely factual knowledge which, in any event, becomes outdated. He must be taught that the preservation and the promotion of health, both of the individual and of the community, are as important as the physical and mental welfare of the patient. He must constantly be made aware of the interaction of the rich genetic background and the variety of environmental factors in the development of the individual as well as of his disease."

Ons mediese wetenskap het geen bestaansreg van sy eie nie - dis direk gerig op die behoefte van die mens

The call thus is for the good doctor who is well grounded in the scientific method and who practices by the exercise of well-based and independent clinical judgment of the patient as a whole. Such a man firstly evaluates all of the pertinent scientific data relating to the general clinical condition confronting him in order to arrive at a well-based judgement, that is the primary diagnosis. He secondly makes an independent judgment concerning the extent to which those data apply to the peculiar circumstances of this human neighbour, now patient; in other words makes a peridiagnosis. He then offers, or withholds, whatever further diagnosis or eventual therapeutic manouver he was considering by also giving attention to this particular patient's prognosis. In this discriminating approach he acts in that unique capacity of a clinician deciding in the interests of his patient. We thus stand in the rather unique position of being both the suppliers and the arbitrators in the service. This fact gives us enormous discretion. Furthermore, this supreme function in health care is deployed in part as a science and in part as an art.

A few basic principles concerning the nature of science as it is applied in the practice of medicine, can be briefly stressed.

(i) During our training we have to become familiar with the concept of the scientific method, namely that a body of knowledge can only be formed through the testing of such hypotheses that have been formulated after careful consideration of the suggestive information available. A clinical hypothesis does not become clinical knowledge without having first passed through the exacting process of being tested by properly controlled studies in patients.

(ii) There is the need to have a sound grasp of the judgmental aspects of science in general. We often and too readily assume that our scientific information

The greater our technology and material power, the greater our need for spiritual insight

also commands the whole truth. To a scientist truth is but a relative term. His approach is that a hypothesis becomes more probable the more often it stands up to the exacting trial. Faced with the vast body of developing information we have to judge as to their relative truth or value. I quote an instance in point. In a series of general

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practice consultations, 200 patients had been randomly-selected in whom no definite diagnosis could be made. They were then either given a symptomatic diagnosis and medication or they were told that they had no evidence of disease and therefore required no treatment. No difference and outcome was found between these two methods as judged by the return or not of the patient within one month and his statement that he did, or did not, get better. Particularly so in medical science, there must therefore inevitably be and remain a doubt as to the ultimate value of the suggestive information or even of so called facts confronting us. In our practice – and this pertains even more to the general practitioner than to the specialist – we have to live with the fact that our fount of knowledge is not absolute in its value, therefore live and practice in doubt and base our judgment on the best probabilities, always in terms of the interests of the patient.

Such an approach calls for: an open mind, aware of the unfirm base; a high tolerance for this uncertainty buttressed by the desire to keep abreast of developments; and also calls for a preparedness to change one's mind in the light of new knowledge. This approach has

been embodied in the preamble to the Minimum Curriculum from which I again quote: "He must be taught accurate observation of the patient, in the laboratory and by other means, in order that he may, by the means at his disposal, arrive at reasonable deductions regarding the essential aspects of diagnosis, prognosis and treatment. He should at all times be taught to be critical of new and old knowledge and to apply a statistical mental approach and methods for the objective evaluation of data."

(iii) We have to recognise the fallibility of even our greatest intellects and the bias inherent in human nature. Scientific knowledge is not what any individual says that it is, no matter how eminent he may be, nor what any blue-ribbon panel may suggest it to be, nor what any governmental body, national or international, may dictate.

Science depends for its vitality on a milieu that fosters vigorous open dissent and spirited but constructive debate.

The greater then our understanding of the nature of science and its methods, the easier we shall live with the inevitable uncertainty and the keener we shall be to keep abreast of advances. Such an achieved mental

maturity will also fortify us against the temptations and pressures of circumstances, of patients and of fashions which blunt our judgment and lead us to undertake procedures which we had better left alone.

Having thus disciplined ourselves in the scientific method and grown in mental maturity, we then have to take a further conscious mental step sideways in order to obtain an objective view of the relationship between patient and doctor and with imagination and empathy, to feel ourselves into the roles and approaches in turn of those two participants. It is my conviction that in this function or ability with regard to patients deployed with competence, compassion and wisdom, largely resides the true and lasting value of our profession and the stature accorded to it by society.

The spectacular achievements of medical science have led to increased expectations and even demands by the members of the public calling on our professional services. And as these achievements grow the more competing claims will there be for advanced and expensive forms of treatment. This has introduced an unsettling cost factor into the patient-

Deep thinking is attainable only by a man of deep feeling

doctor relationship, a factor which calls for and challenges the discretionary function earlier referred to. The choices to be made will become more urgent and difficult. And because not only the individual's but also society's resources are being tapped, we experience the significant trend to transfer the decision making from the intimate patient-doctor level to the impersonal institutional and even governmental levels. The less we thus ourselves exericse the important discretionary function in our relationship, the greater will become

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the need and pressures within the patient body to shift the financial burden and decisions onto the father figure state. I shall not dwell on all the implications, possibly beneficial but in my opinion largely detrimental, which may arise. We, as professional men, must thus be sharply aware of our authority to confer disease on a patient with all the resultant effects which may flow from that art.

There are furthermore two real dangers, not unknown in the history of medicine, to which I would refer. They are the dangers of a crass materialism and of a pragmatic philosophy which both tend to flourish during periods of brilliant scientific activity and achievement. Once thus touched and tainted by them, even a learned profession imbued with ethical principles, loses height and vision and tends to slide into a close knit guild occupied eventually with medicine as a business. There is a vast difference between a profession and a business. We may be businesslike in conducting our practice but need not become businessmen as the dominant approach. The question thus arises and has been put on many occasions: What are we doing to restrain unnecessary tests, procedures, treatments, admissions to institutions? Not only are such excesses potentially harmful to the patient but also to our patient-relationship, and ultimately to the true value and contribution of our profession. For, to make the interaction between ourselves and our patients as productive as possible in helping humanity in its distress, remains the object of everything we do in medicine.

Tot dusver is kortliks verwys na moontlike voordele en nadele en enkele doelwitte van die geneeskunde as 'n wetenskap. In die lig juis van die eietydse aanskoulike wetenskaplike prestasies, het ons geneig om die ander wesensfunksie van ons beroep, naamlik die kuns van praktykvoering en van omgang met pasiënte, te verwaarloos. Ons het al hoe meer, weens ons wetenskaplik ingestelde

A trend to transfer the decision-making away from the intimate patient-doctor level, to the impersonal institutional level

opleiding, "siektes by pasiënte" as ons gehele taak gesien en dientengevolge ook geestelik ingesteld en afgestomp geraak. Vergun my om te herhaal: Pasiënte is nie abstrakte siektes nie maar werklike "mense met probleme." Met die klem op die wetenskaplike benadering, het gegroei 'n toenemende ongeduld en onvermoë in die spreekuur of by die bed, om te luister na en te reageer op

die geheelmens met sy probleme. Hierdie ongeduld werk vernietigend in op 'n gesonde beroepsverhouding.

Binne die verhouding van pasiënt tot geneesheer, blom die kuns van ons beroep

Die verhouding tussen wetenskap en tegniek, wat ons tans so vanselfsprekend aanvaar, het maar onlangs ontstaan. Daarteenoor is die verhouding: pasiënt tot geneesheer, so oud soos ons beroep van duisende jare; juis binne daardie verhouding blom steeds die kuns van die beroep. Dit is hierdie ou kuns en wesensaard van ons beroep wat in die moderne opset opnuut ons gespitste aandag en kragtige onderskraging vereis.

Na my oortuiging is dit binne die universiteitsverband, waar die opleiding plaasvind, dat die huisarts, as arts, as erkende en gesiene dosent, die Renaissance van die Huisarts kan laat bloei. Daarom het ons aan die Universiteit van Pretoria, as eerste in die land, jare gelede reeds, die Departement Huisartskunde tot stand gebring. 'n Gelukkige daad was dit wat groot vrugte afgewerp het, en wat as voorbeeld kon dien vir minstens drie ander fakulteite wat dit reeds aktueel in werking gestel het. Ook elders ter wêreld oor die onlangse dekades is duidelik waarneembaar die talryke departemente van Huisartskunde wat

binne universiteitsverband ontstaan.

Vra ons hoe die student die kuns moet aanleer, die kuns van die beroep, dan tref die gebrek aan aandag van hierdie element in sy opvoeding. Daarom het ek in die geneeskundige onderwys oa so aangedring op die aandeel van die huisarts in die opleidingsbeeld en -patroon vir die student met aandag in besonder aan die opleiding en opvoeding in praktykvoering. Naas die formele inhoud van die kursus gaan dit hier om die kweking van gevoeligheid, ontvanklikheid en die verbeelding. Eienskappe dus van die arts se persoonlikheid wat ontluiking en aanmoediging verg en hom as medespeler in die pasiënt-arts-verhouding kan laat ryp tot 'n volwaardige en 'n gewaardeerde raadgewer en besluitnemer. Hierdie beroepsfunksie kan ten beste gedy in 'n persoonlike verhouding tussen wyse dosent en ontvanklike student, 'n verhouding wat, ongelukkig, in die grootte en vervlegtheid van die moderne onderwysopset moeilik te bereik is. Met doelgerigte aandag deur beplande werkswyses en veral met die voorbeeld, kan dit egter lewend en bevrugtend inwerk. Sommige wil beweer dat die gedragswetenskappe die kuns van die beroep sal vervang; weereens, 'n blyk van die latente arrogansie van die wetenskap. Maar die student, en dus die beroepsman, is immers veel meer as die somtotaal van sy wetenskaplike onderlegdheid. Daarom deel ek nie die gestelde siening nie, aanvaar wel die sogenaamde gedragswetenskappe as 'n deel van sy opleiding maar stel dit nie in die plek van sy eie en ontwikkelde aanvoeling, verbeelding en ervare insig nie.

Sommige wil beweer dat hierdie deel van die opleiding nie by die universiteit tuishoort nie - die universiteit se taak sou dan wees om die verstand of intellek te skool en nie die verbeelding en die aanvoeling nie. Vir my is hulle onafskeibaar, sowel in die opleiding en opvoeding as beroepsman, en as denkbegrip. Skeiding tussen verstand en gemoed, tussen denke, gevoel en verbeelding, is nie te aanvaar nie; hierdie funksies loop saam, stellig met 'n verskuiwing in beklemtoning tussen die fasette na gelang van die onderwerp. Maar soos by die geheelmens as pasiënt is dit ook na my oortuiging die strewe in die opvoeding van die geheelmens as arts. Soos Coleridge dit ook gestel het: "Deep thinking is attainable only by a man of deep feeling."

Ons moderne opleidingsvereistes neig dus om as produk te lewer: 'n persoon analities briljant maar sinteties en aanvoelend verdwerg en naïef. In ons praktykvoering is ons met ons gehele wese betrokke en nie slegs in een funksie nie. Juis deur ons volle betrokkenheid vind ons ons lewensvoldoening, want ons professionele werk is ook die grootste deel van ons bewuste lewe. 'n Beroepspersoonlikheid sodanig ontwikkel, ook na aanvoeling en verbeelding, lewer dan 'n sprankel, 'n charisma en 'n glans wat sy praktykvoering verryk en verdiep ten bate sowel van die beroepsman as die ontvanger van sy dienste, die pasiënt. Naas sy wetenskaplike onderlegdheid staan dus sy ontwikkelde persoonlikheid as tweede doelwit in die opleiding en opvoeding.

Derdens verskyn daar as oorkoepelende komponent die deontologie, of gedragsleer, gegrond op 'n diepliggende etiek wat oor duisende jaar steeds 'n geestesinhoud aan ons beroep verleen. Ook hierdie uiters belangrike komponent in die beroepsman se opleiding is deur die aanskoulike in wetenskaplike prestasies na die agtergrond gedwing, totdat die behoefte weer skerp aangevoel is en dit hedendaags lewendige debat uitlok. Bewus van hierdie behoefte het ons dit in die Minimum Leerplan ingeskryf: "Naas sy opleiding as onderlegde geneesheer moet hy ook as geneesheer binne die geneeskundige etiek van eerbied vir die menslike lewe opgevoed word. Vir sy steeds groeiende taakgebied sal sy gewete gevoelig gehou moet word vir die behoeftes en die belange van die mens as eenling, van die mens in sy bepaalde gemeenskap, en van die mens in sy wêreld." Die sleutelwoord in hierdie aanhaling is die "gewete." Dit is veral hierdie komponent, gevoelige gewete, wat vertroue by die publiek verwek het en steeds verwek, 'n vertroue wat ons as kleinood moet bewaar en beskerm om as erfstuk van beroepsgeslag na beroepsgeslag te kan oorhandig.

Drie fasette van die vrugbare beroepsman, opgewasse aan die eise van ons tydsgewrig, het ek vir u voorgehou: sy wetenskaplike onderlegdheid en vakkundigheid; sy volwaardige persoonlikheid; en sy etiese ingesteldheid. Dit is die wesenlike en wenslike eienskappe van die huisarts wat na my oortuiging onderskryf word deur sowel die voerende beroep as die ontvangende gemeenskap. Dit is die eienskappe wat die Renaissance van die Huisarts sal laat bloei en hom tot in die hoogste kringe sal voer.

Treatment of Vaginal Discharge

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Curriculum vitae

Dr Anvir Adam completed a BSc at UCT and then went to WITS where he obtained the MBChB in 1964. After some GP experience, he wrote the MFGP (SA) in 1973. He has been in General Practice for 25 years with special interests in infectious diseases, diabetes and hypertension. In 1986 he obtained a DTM & H and in 1988 a DPH at Wits, which awakened interest in epidemiology, and he is currently engaged in epidemiological studies pertaining to primary and community health care.

Summary

Vaginal infections are not reportable in the RSA and the aetiology of excessive vaginal discharge amongst urban black patients unknown. This study was carried out to determine the microbiology of excessive vaginal discharge in order to give guidelines for appropriate treatment.

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Vaginal Diseases;
Microbiology.

Introduction

Excessive vaginal discharge, due to vaginitis and cervicitis, is a commonly encountered problem in practice. Many so-called broad-spectrum and over-the-counter vaginal preparations, sold in this country, are notoriously ineffective in treatment[6] and can lead to distressing vulvovaginal irritation.

Vaginal infections are not reportable in South Africa and information on the microbiologic aetiology of excessive vaginal discharge amongst urban black patients has been inadequate. Specific therapy, based on a microbiologic diagnosis, would seem to have a higher chance of achieving cure. Therefore, a study was carried out in order to determine the microbiology of excessive vaginal discharge, so that appropriate treatment guidelines could be given for this condition.

Patients

The study population consisted of ninety-two non-pregnant, sexually active women from the urban setting of Mamelodi. The age-range of the patients was between 17 and 46 years with an average (mean) of 29 years. Criteria for inclusion into the study were the presence of excessive vaginal discharge only, as complained of by the patient, or in some combination with vulvovaginal irritation, dysuria, dyspareunia and vaginal malodour. Patients were excluded from the study if they had received any form of antimicrobial therapy, including over-the-counter vaginal preparations, in the preceeding two weeks.

Methods

Each patient was subjected to a general and gynaecologic examination. The urine was tested for glucose. Note was made of any malodour and the appearance (colour, consistency, etc) of the discharge was recorded. The cervix was exposed to observe the presence or absence of any mucopurulent exudate from the endocervix. The vaginal pH was measured with indicator paper (Whatman, narrow range, pH 4 to 6) dipped into the discharge.

The ectocervix was wiped clean with cotton wool and swabs were taken from the posterior fornix and the endocervix. All the chemical and microbiologic investigations were conducted by a team of microbiologists from the Medical University of Southern Africa (MEDUNSA).

Results

The incidence of the various vaginal and cervical infections diagnosed in this study is shown in Table 1. Bacterial vaginosis (BV) was diagnosed in 61% of the patients. In

the absence of other pathogenic genital micro-organisms, BV was present in 25/92 (27%) of the patients. Of the 21 yeast isolates, 18 (86%) were identified to be *Candida albicans*, the rest were found to belong the genus *Torulopsis*. None of the *Neisseria gonorrhoea* strains was found to produce beta-lactamase.

Table 1: Incidence of bacterial vaginosis and genital micro-organisms in 92 patients with vaginal discharge.

Diagnosis	No	(%)
Bacterial vaginosis	56	61
T vaginalis	27	29
Yeasts	21	23
N gonorrhoea	3	3
C trachomatis	17	18

In 30 patients cervicitis was indicated by the presence of a mucopurulent endocervical discharge and/or 10 or more polymorphonuclear leucocytes (PMS's) per high power field on gram-stained cervical smears. The majority of these patients also had erythema and oedema of the cervix. Only one patient had cervical ulceration. *Chlamydia trachomatis* was isolated from 47% and N gonorrhoea from 10% of these women (Table 2). In one of these cases both organisms were recovered and in 14 (47%) neither agent was isolated. The carriage rate of *C trachomatis* in the 62 women in whom the cervix appeared normal was 5%. *N gonorrhoea* was not recorded in this group.

The percentage distribution of the number of infections diagnosed in each patient is shown in Table 3. In 12 (13%) of the study population neither a genital pathogen nor BV was demonstrated. Ten of these women were adjudged to have a physiological increase in the amount of vaginal discharge and the other two were found to have signs of cervicitis. Single infections were demonstrated in 47% and mixed infections in 40% of the patients. From Table 3 the percentage distribution of the various infections individually and when mixed can also be seen. In general, infections of the genital tract occurred more frequently when mixed with at least one other infection. In the 21 women in whom yeasts were found 6 (29%) had concomitant trichomaniasis together with active clinical candidosis, indicated by evidence of pseudohyphae in wet preparations.[1]

Table 3: Percentage distribution of mixed infections

	No of infections			
	1	2	3	4
Bacterial vaginosis (n = 56)	-	45	45	11
T vaginalis (n = 27)	-	19	59	22
Yeasts (n = 21)	-	38	43	19
N gonorrhoea (n = 3)	-	33	33	33
C trachomatis (n = 17)	-	23	65	12
All patients (n = 92)	13%	47%	34%	6%
				40%

Table 2: Isolation of Neisseria gonorrhoea and Chlamydia trachomatis in patients with a normal cervix and with cervicitis

Organism	Normal cervice (n = 62)		Cervicitis (n = 30)	
	No	%	No	%
No gonorrhoea	0	-	3	10
C trachomatis	3	5	14	47

Treatment Guidelines

Based on the findings of this study appropriate guidelines can be given with regard to therapy of urban black patients presenting with excessive vaginal discharge.

Trichomoniasis

Twenty seven (29%) of the ninety-two patients studied harboured

Trichomonas vaginalis. Swabs were taken from the posterior fornix and diagnosis was made by direct visualisation of T vaginalis in normal saline wet preparations.

Either single dose or treatment over a period of five to seven days can be instituted. In cases where non-compliance would be a problem it is better to institute single-dose therapy.

Metronidazole is given either as:

2 g orally single dose, or

0,5 g (500 mg) orally 12-hourly over five days, or

0,25 g (250 mg) orally 8-hourly over seven days.

If treatment failure occurs, in which reinfection has been excluded, the patient should be given a single 2 g dose of metronidazole daily for three days.

Male sex partners of patients should be treated with either the single dose or the seven-day regimen. In this study only seven of the twenty seven patients were able to contact their sex partners and these were treated with the seven-day regimen.

Many so-called broad-spectrum and over-the-counter vaginal preparations are notoriously ineffective and lead to irritation

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If repeated treatment failure occurs patients should be managed in consultation with an expert. Evaluation of such patients should include determination of the susceptibility of T vaginalis to metronidazole.[2]

Vulvovaginal candidosis

Usually this is not considered to be a sexually transmitted disease. Sexual contact probably accounts for only a small proportion of cases of vulvovaginal candidosis. It is diagnosed in women presenting with signs involving the external genitalia.

Few of the sex partners could be contacted

Twenty one (23%) of the patients in the study had yeasts and some degree of oedema of the vulva. Fungal elements were observed in potassium hydroxide wet preparations. From the 21 yeast isolates, swabs were plated on Sabouraud's agar and sent to the laboratory for further identification which showed that 86% of the yeasts were Candida albicans.

It should be remembered that diabetes mellitus and treatment with broad-spectrum antibiotics predispose patients to the development of vulvovaginal candidosis.

Both single-dose and a three-day regimen have proved to be effective. Teraconazole (Terazol depot) as a single dose and clotrimazole as a three-day regimen were used.

Teraconazole is a synthetic triazole fungicide and is believed to interfere with triglyceride synthesis in the yeast cell wall. One teraconazole (160 mg) ovule must be inserted high into the vagina at bedtime once only, or clotrimazole (Canesten) 100 mg 2 tablets, intravaginally at bedtime for three days.

Patients with frequent unexplained infections should be evaluated for predisposing conditions (especially HIV-infection, patients on steroid therapy and oral contraceptives, diabetes mellitus, hypocalcaemia and frequent antibiotic treatment) should be referred to an expert for care.

Treatment of sex partners is not necessary unless candidal balanitis is present.[2] In this study none of the patients brought their sex partners for treatment.

Bacterial vaginosis (BV) (formerly called Gardnerella-associated vaginitis) is the clinical result of alternations in the vaginal microflora. Diagnosis is made when three of four criteria are present (a thin homogeneous discharge, pH 4.5, presence of clue cells in gram-stained vaginal smears, positive amine odour test also called 'sniff-test' when vaginal discharge is mixed with a few drops of 10% potassium hydroxide on a glass slide.

Oral contraceptives may have an effect on vaginal physiology favouring the overgrowth of yeasts

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Treatment consists of metronidazole 500 mg orally, 12-hourly for seven days.

No clinical counterpart of BV is recognised in the male, and treatment of the male sex partner has not been

shown to be beneficial for the patient or the male partner.[2]

Mucopurulent cervicitis due to Chlamydia trachomatis was demonstrated in 17 (18%) of the study population. Culture and nonculture methods for diagnosis are not routinely carried out in practice. So, in clinical settings where testing for chlamydia is not routine or available, treatment often is instituted on the basis of clinical diagnosis or as co-treatment for gonorrhoea.

It is recommended that periodic surveys should be performed to determine local chlamydial prevalance in patients with gonorrhoea.[2]

Diagnostic criteria used in this study for mucopurulent cervicitis were the presence of endocervical discharge, which may appear yellow when viewed on a white cotton-tipped swab; or if there are ten or more polymorphonuclear leucocytes per high power field on gram-stained cervical smears.[3,4]

The treatment recommended is doxycycline 100 mg orally 12-hourly for seven days, or tetracycline 500 mg

Tight-fitting, synthetic clothing increase the temperature and moisture in the perineal area

orally 6-hourly for seven days. An alternate regimen is erythromycin base 500 mg orally 6-hourly or equivalent salt for seven days.

Infection of the cervix with Neisseria gonorrhoea was demonstrated in 3 (3%) of the study population. This frequency of recovery is much lower than in similar studies carried out in Durban.[5] One reason for this low frequency is the higher average age of patients in this study (29 years). Gonorrhoea generally occurs more frequently in younger patients. The recommended treatment is influenced by trends such as

1) the spread of infections due to antibiotic-resistant N gonorrhoea, including penicillinase-producing strains (PPNG);

Tampons have a direct effect on vaginal mucosa

2) the high frequency of chlamydial infections in persons with gonorrhoea;
3) recognition of complications of chlamydial and gonococcal infections and
4) the absence of a fast, inexpensive, and highly accurate test for chlamydial infection.

Co-existing chlamydial infection has to be considered and so patients with gonorrhoea should also be treated for presumptive chlamydial infections. Generally, patients with gonorrhoea infections should be treated simultaneously with antibiotics effective against both C trachomatis and N gonorrhoea. Treatment instituted in this study consisted of doxycycline 100 mg orally 12-hourly for seven days.

Tetracycline may be given in place of doxycycline; however, compliance may not be so good since tetracycline must be given at a dose of 500 mg 6-hourly between meals whereas doxycycline can be given without regard to meals (absorption is not affected by meals). Also, at current prices, tetracycline costs only a little less than generic doxycycline.

Two of the male sex partners of the three patients presented for treatment and they were treated presumptively with doxycycline.

Persistent symptoms after treatment may mean antibiotic resistance or re-infection. In the case of the former, N gonorrhoea should be tested for antibiotic sensitivity. However, treatment failure is commonly due to re-infection and indicates a need for improved sex-partner referral and patient education.

Mixed infections

Mixed infections were demonstrated in 40% of the study population (Table 3). The treatment instituted for mixed infections in this study consisted of metronidazole, tetracycline, and clotrimazole vaginal tablets. This form of therapy covered

Every effort should be made to trace and treat the sex partner

bacterial vaginosis, infections due to T vaginalis, C trachomatis, N gonorrhoea and yeasts.

Discussion

Clinical experience indicates that excessive vaginal discharge appears to be increasing in urban blacks. The rising levels of sexual activity, the increasing percentage of the urban black population falling into the ages

Tracing the male sex partners of patients is often difficult in urban black practice. Living in temporary abodes, lack of sufficient health education and migrant labour systems may account for poor contact tracing and follow-up.

The efficacy of the penicillins is decreasing because of the increased frequency of penicillinase-producing gonococcus strains. In this study penicillin was not used for this very reason since surveys have shown an almost 10% treatment failure rate due to penicillinase producing organisms.

Even in clinical situations where it is difficult to make a definitive diagnosis due to lack of laboratory facilities, some treatment guidelines can be given eminating from this

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It appears to be increasing in urban blacks

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study. Treatment with metronidazole is recommended in view of the frequency of trichomoniasis and BV. Both these respond very well to this drug. Clotrimazole or teraconazole should be prescribed for patients presenting with features of vulvovaginal candidosis. Co-existent chlamydia trachomatis infections should be treated with doxycycline or tetracycline to eradicate the organism and prevent complications associated with both N gonorrhoea and C trachomatis infections.

Every effort should be made to trace male sex partners of the patients so that they can be treated where appropriate. Patients should be asked to return for follow-up after treatment.

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