ORIGINAL ARTICLE

A Malaysian Well Person's Clinic – Review of Patients Seen Between April and December 1995

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Summary

The Well Man & Well Woman's Clinic in Ipoh Hospital provides screening for coronary risk factors and early detection of cancer. This retrospective review of 1095 patients screened between April and December 1995 showed 48% had one or more coronary risk factors – 1 risk (29%), 2 risks (14%), 3 or more risks (5%). Modifiable risks included hypertension (10%), obesity (9%), diabetes mellitus (8%) and smoking (7%). Sixteen abnormal Papanicolaou smears and six cancers (three cervical, two breast and one ovarian) were detected. Public response was good. There is a need for clinics offering comprehensive screening in Malaysian primary health care.

Key Words: Well Person's Clinic, Cancer screening, Primary care, Coronary risk factors

Introduction

Lifestyle related diseases like coronary artery disease and cancer now rank among the top 5 causes of death and admissions to hospitals in Malaysia[1]. Preventive measures such as screening for coronary artery disease risk factors and early detection of cancer are more cost effective ways to reduce morbidity and mortality than treatment of the diseases. Screening for risk factors for cardiovascular disease has been widely adopted in western countries as a major strategy for cardiovascular disease prevention. Epidemiological research has shown that a reduction in all major risk factors is associated with a decreased incidence of premature cardiovascular disease[2]. Up to 90% of cancer is associated with the environment and lifestyle and death from cancer may be avoided by early detection[3].

Current screening programmes by the Ministry of Health include screening of senior civil servants over 40 years old. Well Woman's clinics and Family Planning clinics provide Papanicolaou (Pap) smear and breast examination. A pilot project for screening of coronary artery risk factors is being conducted in 3 districts[2]. Selection for screening in this project is by systematic random sampling of patients attending the general outpatient clinics and health centres. A large proportion of the population e.g. males, unmarried females do not have access to screening.

Traditionally outpatient department which are government run primary health care centres provide treatment for patients who are sick. However, a person who feel well may already be at risk for coronary artery disease and cancer. With the emergence of lifestyle related diseases it is important to have clinics where the public can be screened for risk factors and those at risk be provided with health education and treatment to modify their lifestyle.

With this in mind the Well Man & Well Woman's Clinic was started in April 1995 in the Outpatient Department, Ipoh Hospital. The general objective of this clinic is to provide the public with opportunity

to be screened for coronary artery risk factors e.g. smoking, hypertension, obesity and diabetes mellitus and for early detection of some common cancers e.g. cancers of the breast, cervix, oral, lung and gastrointestinal tract. The clinic is open to the public on the first and third Wednesday mornings of each month. Though the public are seen through appointment, a limited number of walk-in patients without appointments are accepted on clinic days. The clinic is run by staff from the Outpatient Department with assistance from a health education officer, dietician, physiotherapist, occupational therapist and a dental officer.

Pap smear and breast examination (including the teaching of breast self examination technique) are done for the female patients. Blood cholesterol and blood sugar are automatically ordered for patients with 3 or more coronary risk factors and patients with xanthoma. Those found with risk factors are counselled. Patients requiring further investigations such as mammography and biopsy are referred to the respective specialist clinics.

Materials and Methods

This is a retrospective review of all patients registered between April to December 1995 in the Well Man and Well Woman's Clinic, Outpatient Department, Ipoh Hospital. The patients' records were analysed with regards to demographic characteristics (gender, age, ethnic origin), coronary risk factors and outcome of cancer screening.

The non modifiable coronary risk factors were male sex and family history of coronary artery disease or sudden death of unknown cause in first degree relatives. Modifiable risk factors included hypertension (blood pressure > 160/95 mmHg – WHO criteria of definite hypertension), obesity (body mass index 30 or more), positive smoking history, known diabetes mellitus and xanthoma.

In cancer screening, patients were asked for past history and family history of cancer and smoking. Symptoms such as chronic cough more than 2 weeks, haemoptysis and gastrointestinal symptoms e.g. alteration in bowel habits, loss of weight and appetite were illicited. Any abnormal findings on physical examination such as masses and lymph nodes were noted. Investigations included Papanicolaou (Pap) smear. Chest X-ray, sputum cytology and other investigations such as ultrasound were ordered only at the discretion of the examining doctor depending on signs and symptoms of individual patient. Gastrointestinal scopes were done on selected patients referred to the surgical unit and mammography, breast ultrasound and biopsy on selected patients referred to the Breast Clinic, Hospital Ipoh.

Results

A total of 1095 persons (males 20% (221), females 80% (874)) were screened between April 1995 and December 1995. The majority (57%) were between the ages of 40-59 (see Fig. 1). Distribution by ethnic group as compared to the attendance in the Outpatient Department, Ipoh Hospital[4] and the general population in Ipoh[5] is shown in Figure 2.

Forty-eight per cent (526) of the patients were found to have one or more coronary artery risk factors. Twenty-nine per cent (323) had 1 risk factor, 14% (150) had 2 risk factors and 5% (53) had 3 or more risk factors.

Ten per cent (105) had elevated blood pressure (>160/95 mmHg) WHO criteria for definite hypertension.

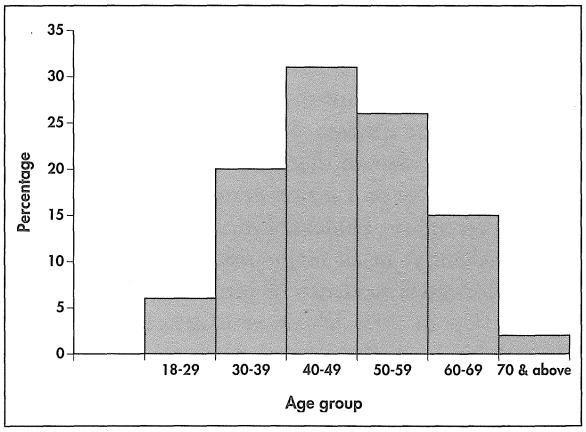

Fig. 1: Distribution by age group – patients seen in the Well Man & Well Woman's Clinic, Hospital Ipoh between April to December 1995

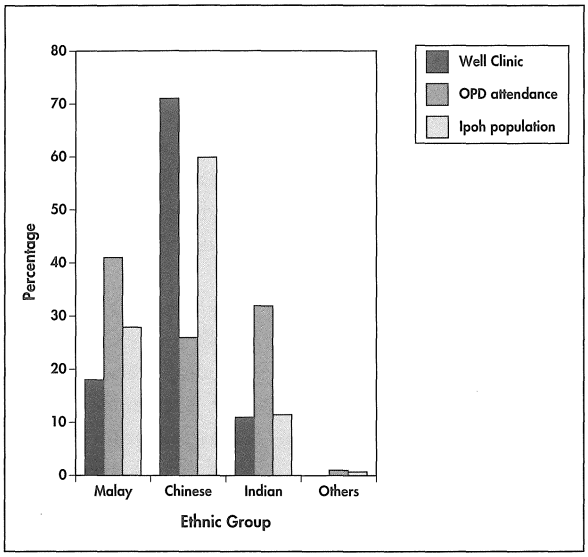

Fig. 2: Comparison of ethnic distribution of patients attending the Well Man & Well Woman's Clinic, the Outpatient Department (OPD), Ipoh Hospital & general population in Ipoh

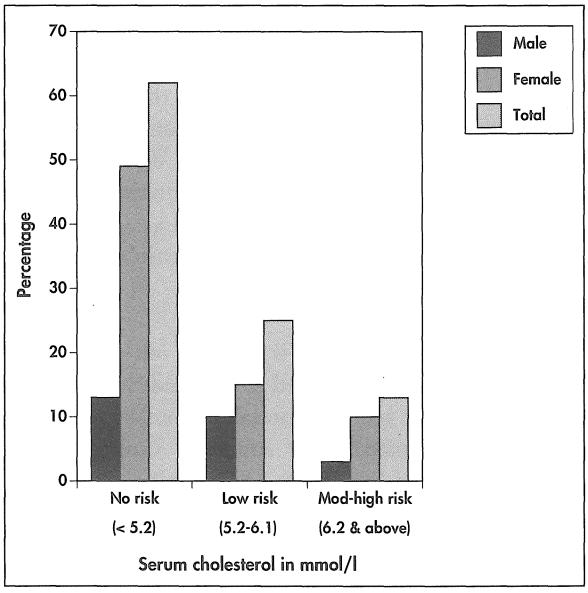

Fig. 3: Results of serum cholesterol done on 370 patients screened between April to December 1995 in the Well Man & Well Woman's Clinic, Ipoh Hospital

Nine per cent (100) were obese (body mass index 30 or more). Eight per cent (86) had known diabetes mellitus. Seven per cent (78) of the patients smoke : males (67) females (11). Sixteen per cent (172) had a positive family history of coronary artery disease or sudden death of unknown cause in first degree relatives. Only one female patient had xanthoma.

Results of serum cholesterol done are shown in Figure 3. The two patients with levels more than 9.2 mmol/l were referred to the physician's clinic. Three per cent (8) of the 305 random blood sugars ordered were raised (>11 mmol/l).

Pap smears were done on 600 female patients. Sixteen had abnormal Pap smears (CIN 1 to CIN 3). One patient was found to have a cauliflower growth (suspected cancer of cervix). Another patient had a pelvic mass which on ultrasound showed an ovarian mass. All were referred to specialist clinic. Two patients with abnormal pap smears (CIN 2 & CIN 3) referred to specialist clinic were confirmed carcinoma of cervix stage 1 after colposcopy and loop excision. The patients with cauliflower growth and ovarian mass were found to have cancer of cervix and cancer of ovary respectively.

Seven hundred and fifty five women were taught breast self examination technique and had their breasts examined at the same time. Twenty-nine with breast lumps were referred to specialist clinic. Two were confirmed breast carcinoma (Stage 1 & 2).

Gastrointestinal endoscopy done on 14 patients referred to the surgical unit showed benign lesions. No oral cancer was detected in the 20 patients referred to dental clinic. No lung cancer was detected in the study period.

Liver function tests, alpha- fetoprotein and ultrasonography were done on two Hepatitis B carriers (mother and daughter) with a family history of hepatocellular carcinoma. The results were normal. They were advised regular follow-up by their family physician.

Discussion

Since the clinic started in April 1995 there has been a very good response from the public resulting in a

waiting period of 2-3 months. Although the majority of patients were from Ipoh there were patients from as far away as Cameron Highlands, Tapah, Langkap and Teluk Intan. Some patients requested for full day weekly clinics. Owing to manpower and budget constraints, the clinic hours could not be extended. The response from the Chinese was especially good. This was probably due to extensive coverage by the Chinese newspapers on the clinic and the health consciousness of the majority Chinese population in Ipoh[5]. More Malays came later when they heard about the clinic over the radio. A request by the City Council to screen all their staff (998) had to be turned down because of lack of manpower. However, it was suggested to the health personnel working in the City Council to screen their own staff with help from the Well Man & Well Woman's Clinic. Thirty-seven of the Ipoh police wives association members were screened in a special session arranged with the Well Man & Well Woman's clinic. A number of patients from the Family Planning Clinics also attended. They felt the Well Man & Well Woman's Clinic gave a more comprehensive screening and is cheaper (RM1/- instead of RM5/- in the Family Planning Clinic).

The results of this study showed almost half of the patient screened had coronary artery disease risk factors. Many had modifiable risk factors e.g. smoking, obesity, elevated blood pressure, elevated blood cholesterol and diabetes mellitus. Because of manpower and budget constraints, blood cholesterol and random blood sugar were initially done only for patients with 3 or more risk factors and patients with xanthoma. However, most patients requested and expected blood tests. Blood cholesterol were later on done also for patients with history of hyperlipidaemia, obesity, and patients above 40 years old who requested. There was a suggestion for all patients to be screened for blood cholesterol and be charged for the test. This was not done as the medical fees ordinance stipulates the outpatient fee as RM1/-[6] inclusive of blood tests. This needs to be reviewed to enable more to undergo blood test screening. The alternative is for the clinic to apply for additional funds for these tests but availability of laboratory personnel to take on the extra workload has to be looked into. A recently reported randomised study[7] showed that reduction of blood cholesterol in primary prevention reduces cardiovascular mortality without affecting adversely mortality from non cardiovascular causes as was found in an earlier study[8]. Non pharmacological therapy (diet advice, exercise, lifestyle modification) is still the first line treatment of hypercholesterolemia in primary prevention. The additional cost of using lipid lowering drugs when non pharmacological therapy fails to reduce the cholesterol to the target level[9] need to be considered.

Thirty per cent of the male and 1% of the female patients in the Well Man & Well Woman's Clinic were smokers (national figures: 41% males, 2% females[10]). Smoking is the leading cause of preventable death worldwide causing 3 million deaths per year. It is the largest single health risk in United States, responsible for 390,000 premature deaths each year, equivalent to one sixth of all deaths[11]. Smoking is associated with both coronary artery disease and 90% of lung cancer (leading cause of death among cancers in Malaysian men[3]). After a smoker stops smoking the extra risk of death from coronary artery disease declines to that of non smokers over 10-15 years. A reduced risk for lung cancer may begin as early as 5 years after cessation of cigarette use[12]. Trials in smoking cessation methods[13] have shown that quit rates on simple physician advice/ counselling is only 5%. But if coupled with intervention more than counselling (physician enhances advice with stronger message, giving tips on how to quit & providing follow-up support) the success rate improved to 29%. Multiple programmes have quit rates of 32%. The Well Man & Well Woman's Clinic in Ipoh Hospital hopes to start a smoking cessation clinic to improve results. The clinic's approach to lung cancer detection is by primary prevention (smoking cessation) and case finding[12-14].

Screening mammography is carried out in western countries where randomised controlled studies have shown significant reduced mortality from breast cancer for women screened[15]. The American Cancer Society recommends monthly breast self examination, regular clinical examination and baseline mammography between age 35 and 40, 2 yearly mammography between age 40-49, and yearly, age 50 and over[16]. The value of breast self examination is a controversial issue. Many studies indicate a positive association of the practice of breast self examination and early detection of cancer[17]. In the Well Man & Well Woman's Clinic

in Ipoh Hospital, no screening mammography was offered to asymptomatic women as use of mammography is currently restricted. It is only offered as a diagnostic help to patients with symptoms and signs related to breast disease. As a screening programme it is offered to referred cases by specialist for patients with a strong family history of breast cancer, for screening the other breast for malignancy and for post treatment surveillance[18]. Patients who can afford to pay RM100/ - were sent to private hospitals for screening mammography. Nevertheless the clinic follows the Ministry of Health guidelines in promoting breast self examination and clinical breast examination[18].

Faecal occult blood was not used as a screening test for colorectal cancer as the surgeons preferred patients at risk (from history, suspicious signs and symptoms) to be referred to them for colonoscopy. Although faecal occult blood is widely used, there has been no conclusive evidence that they reduce colorectal cancer until recently. One randomised study (Minnesota Colon Cancer Study) demonstrated a significant reduction (32%) in mortality[19]. But false positive rates up to 50% and false negative rates of up to 30% have been reported[20]. It is not recommended as a screening test in the standard-risk asymptomatic patient[21].

The American Cancer Society recommends digital rectal examination (DRE) and prostate specific antigen (PSA) as screening for prostatic cancer[22]. Some studies show that the combination of DRE, PSA and transrectal ultrasound increases cancer detections[23,24]. Screening for cancer of the prostate was not done in the Well Man & Well Woman's Clinic, Hospital Ipoh because PSA and transrectal ultrasound were not available. PSA is currently restricted to requests from specialist. DRE were done on patients with urinary or gastrointestinal complaints at the attending doctor's discretion.

Nasopharyngeal carcinoma (NPC) and hepatocellular carcinoma (HCC) are common among South East Asian Chinese[25,26]. Epstein Barr virus antibody, a prognostic serological marker with NPC, is currently not used for screening as it is non specific[25]. Patients with suspicious symptoms and signs such as epistaxis, cervical lymphadenopathy, unilateral deafness or conduction defects were referred to otolaryngology clinic. Similarly for HCC, the well clinic did not screen for Hepatitis B antigen. But known hepatitis B carriers were investigated with liver function tests, alpha- fetoprotein and ultrasonography. There was no screening for skin cancer. Any suspicious mole/skin lesion found on physical examination was referred to the dermatology clinic. No NPC, HCC or skin cancer were detected in the study period.

Considering the high morbidity and mortality associated with lifestyle related diseases in Malaysia there is an urgent need for screening of risk factors for coronary artery disease and cancer in our population and efforts at health education and modifying the lifestyle of those at risk. There is a need for such clinics to be set up not only in outpatient departments in hospitals but also in other primary care centres including private GP clinics.

The existing well woman's clinics and Family Planning clinics in the country can be expanded to cover a larger population and to include screening for coronary risk factors. Solo GP practices need not start a separate clinic but incorporate screening into the examination of their patients. The general outpatient department in Hospital Ipoh has started screening selected patients using a similar format as the Well Man & Well Woman's Clinic.

High risk patients also need to be followed up over an extended period to monitor their modifiable risk factors. This was not possible in the Well Man & Well Woman's Clinic with shortage of manpower. These patients were referred to the specialised clinics (diabetic/hypertension clinic in outpatient department), general outpatients or to their family doctors for follow-up and further management.

The present clinic is run by staff deployed from the general outpatients pool. Costs of investigations such as Pap smears and blood tests were absorbed into the existing operating budget. No additional staff or funds were allocated. However, the clinic plans to expand its services to include a follow-up clinic for high risk patients, a smoking cessation clinic, screening mammography for asymptomatic women age 50 years and above, exercise/aerobic and cooking sessions for patients and a mini gymnasium. Screening and early detection of mental disorders are been looked into as a

well person is totally well only if he or she is both physically and mentally healthy. Availability of manpower and funds will determine the future development of the Well Man & Well Woman's Clinic in Ipoh Hospital.

In conclusion, this study shows that almost half of all patients screened in the Well Man & Well Woman's Clinic, Ipoh Hospital had one or more coronary artery risk factors. Six cancers were detected. The public response was good. There is a need for more Well Person's clinics offering comprehensive screening in primary health care centres in Malaysia.

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