
 EDITORIAL

Screening Efficacy in Asia - What of Problems of Non-Presentation at Hospital for Treatment?

The paper in the present issue of the APJCP by Mandal and his colleagues offers a disturbing contrast to generally positive conclusions of the recent special article by Breen et al (2001) on progress in cancer screening in the USA. The underlying differences in basic assumptions are of essential significance if we are to advocate national screening programs in Asia. A simple comparison points to major inequality between countries which is also a feature within the various sectors of communities.

To concentrate first on the good news, national health surveys for 1987, 1992 and 1998 in the United States demonstrate that use of all screening modalities, including Pap smears, mammography, fecal occult blood tests (FOBTs), sigmoidoscopy and digital rectal examination (DRE), increased over the period. However, patterns of change differed, especially with the racial/ethnic groups, those with lower income and less education consistently demonstrating lower prevalence of use. A lack of health insurance or a usual source of care were quoted as important factors in the latter.

The availability of relatively simple methods for early detection of cancer in the upper alimentary canal, stomach, colorectum, cervix and perhaps breast, means theoretically that much could also be achieved with screening in the

developing world. In Asia, for example, these cancers account for large proportions of the total cancer burden (see the Table), naturally with considerable country variation. The stress would thus need to be appropriately selected in line with the available registration data and financial resources.

With regard to reports from Asia in this area, while there is a major problem with non-participation of oral cancer at-risk subjects (Warnakulasuriya and Johnson, 1996), screening can be very beneficial as evidenced by results with 60 year old residents in a city in Japan, very good predictive values being reported (Ikeda et al., 1995). The efficacy of gastric cancer screening has been reviewed by Yoshida and Saito (1996). With the occult blood approach, risk of malignant tumor development in the colon may be halved (Saito et al., 1995) and a survival rate for five years of 87% as opposed to 57% for symptomatic cases has been reported (Shida et al., 1996). With FOBT alone, sensitivities of 90% for 1 year, 83% for 2 and 71% for 3, have been reported, with a specificity of 95.6% (Nakama et al., 1996). It has been estimated that 91% of cervical cancers can be prevented by screening (Hristova and Hakama, 1997) and results from Japan also point to major benefit. In fact, occult blood tests for colorectal and urogenital cancers could be married to superficial observation for skin and palpation for

Table. Percentages of Total Neoplasms for Those Which can be Readily Screened in Selected Asian Countries

Country	Buccal+ Oesophagus		Stomach		Colorectal		Cervix F	Breast F	Total	
	M	F	M	F	M	F			M	F
China	10.4	6.1	17.0	12.3	7.2	8.0	1.0	10.0	34.6	37.4
India	19.3	10.8	6.9	3.2	5.4	3.5	23.0	20.5	31.6	61.0
Iran	32.9	27.8	13.0	6.3	3.0	3.1	7.6	13.0	56.5	57.7
Japan	6.0	2.2	25.2	17.7	18.1	16.8	4.2	15.3	49.3	56.2
Korea	5.5	1.8	25.8	19.8	5.5	7.9	9.6	11.8	36.8	50.9
Pakistan	21.6	15.0	3.1	2.9	4.0	2.9	6.6	32.3	28.7	58.7
Thailand	10.2	5.6	3.2	2.4	6.7	5.8	17.8	13.8	20.1	45.4
Vietnam	12.2	7.1	16.7	10.7	8.1	8.2	17.0	17.1	37.0	60.1

Data from APJCP Supplement 1 Vol 2, Cancer Registration in Asia in the Year 2000, Past Present and Future

the breast, perhaps self administered to a large extent, to achieve a great deal in the general populace (Qin et al., 1996). By accessing nursing expertise this could be expanded to include serum tests, occult blood for the esophagus and stomach, and assays for human papilloma viruses in swabs for sites including the buccal cavity, cervix and rectum/anus. However, from the results documented by Mandal et al (2001), following on their earlier work on compliance with treatment (Mandal and Roy, 2000), a major problem must first be overcome in the area of education.

This is clearly not limited to Asia since similar findings have also been published regarding particular population groups elsewhere (Shankar and Figueroa-Valles, 1999; Uche, 1999). To overcome the lack of awareness it is necessary to employ sophisticated information strategies, for example using videotapes which have been shown to impact well on the public (Wilson and Stein, 1997). It has also been argued that a multimedia is necessary (Kiebusch et al., 2000), including interactive soap operas (Jibaja et al., 2000). In this context, it should be remembered that even in highly educated populations with ready access to the relevant information, there is less than complete compliance with screening guidelines (Helzlsouer et al., 1994). Indeed, the general level of knowledge may be low, for example only half of Americans surveyed in one study thinking they had a good chance of survival following early detection of colon and cervical cancers, both of which have 5 year rates exceeding 90% (Breslow et al., 1997). This serves as a potent negative motivation. Behavioural research with respect to cancer prevention clearly is a high priority (Lerman et al., 1997). In general there is a need for open discourse, founded on an efficient public education system and shared decision-making. This may be especially the case for disadvantaged minorities, for example like Mexican-American women who often demonstrate significant misconceptions and fatalism, but in whom major improvement can be obtained with increased knowledge (Carpenter and Colwell, 1995).

It is clear that success of treatment of cancer patients is directly dependent to a large extent on early reporting by patients, wherever in the world (Hinton, 1999; Warnakulasuriya et al., 1999; Caruso et al., 2000). Thus in addition to the necessity for stress on the efficacy of screening, there needs to be more emphasis on increasing the awareness of the general population about symptoms in general and their significance.

As general advisers to the population at large, the physicians obviously must play a major role, but the lack of stress given to general prevention and screening in medical education at the undergraduate and postgraduate level may be a major hindrance in this regard (Chamberlain et al., 1995). Especially in the third world, attitudes of doctors may be a barrier to effective screening (Soliman et al., 1997). We can also extrapolate to the case of early symptoms where time needs to be taken for clear explanations of what any particular change may signify. Furthermore, the clinician may have an essential role to play in statistical survey of cancer awareness among the general population in order to

assess the level of awareness (Shankar and Figueroa-Valles, 1999; Uche, 1999). A scientific basis on which to build in promoting screening and appropriate treatment of downstaged cancer cases in the region is a high priority (Halverson et al., 2000; Thiemann et al., 1999).

References

- Breen N, Wagener DK, Brown ML, Davis WW, Ballard-Ballash R (2001). Progress in cancer screening over a decade: results of cancer screening from the 1987, 1992, and 1998 National Health Interview Surveys. *J Natl Cancer Inst*, **93**, 1704-13.
- Breslow RA, Sorkin JD, Frey CM, Kessler LG (1997). Americans' knowledge of cancer risk and survival. *Prev Med*, **26**, 170-7.
- Carpenter V, Colwell B (1995). Cancer knowledge, self-efficacy, and cancer screening behaviors among Mexican-American women. *J Cancer Educ*, **10**, 217-22.
- Caruso A, Di Francesco B, Pugliese P, Cinanni V, Corlito A (2000). Information and awareness of diagnosis and progression of cancer in adult and elderly cancer patients. *Tumori*, **86**, 199-203.
- Chamberlain RM, Smith DW, Zhang JJ et al (1995). Improving residents' knowledge of cancer prevention: are physicians prepared for prevention?. *J Cancer Educ*, **10**, 9-13.
- Halverson PK, Mays GP, Rimer BK, et al (2000). Adoption of a health education intervention for family members of breast cancer patients. *Am J Prev Med*, **18**, 189-198.
- Helzlsouer KJ, Ford DE, Hayward RS et al (1994). Perceived risk of cancer and practice of cancer prevention behaviors among employees in an oncology center. *Prev Med*, **23**, 302-8.
- Hinton J (1999). The progress of awareness and acceptance of dying assessed in cancer patients and their caring relatives. *Palliative Med*, **13**, 19-35.
- Hristova L, Hakama M (1997). Effect of screening for cancer in the Nordic countries on deaths, cost and quality of life up to the year 2017. *Acta Oncol*, **36 Suppl 9**, 1-60.
- Ikeda N, Downer MC, Ishii T et al (1995). Annual screening for oral cancer and precancer by invitation to 60-year-old residents of a city in Japan. *Comm Dental Hlth*, **12**, 133-7.
- Jibaja ML, Kingery P, Neff NE, et al (2000). Tailored, interactive soap operas for breast cancer education of high-risk hispanic women. *J Cancer Educ*, **15**, 237-42.
- Kiebusch S, Hannich H-J, Isacson Å, et al (2000). Impact of cancer education multimedia device on public knowledge, attitudes, and behaviors: a controlled intervention study in Southern Sweden. *J Cancer Educ*, **15**, 232-6.
- Lerman C, Rimer B, Glynn T (1997) Priorities in behavioural research in cancer prevention and control. *Prev Med*, **26**, S3-S9.
- Makino H, Sato S, Yajima A et al (1995). Evaluation of the effectiveness of cervical cancer screening: a case-control study in Miyagi, Japan. *Tohoku J Exp Med*, **175**, 171-8.
- Mandal S, Roy K (2000). Pattern of compliance with treatment and follow-up of cervical cancer patients at Chittaranjan National Cancer Institute, Calcutta. *Asian Pacific J Cancer Prev*, **1**, 289-92.
- Mandal S, Sen AN, Kar S, Roy K, Hait AK (2001). Distribution of cancer patients according to time taken from starting day of symptoms to reporting at a regional cancer institute in Eastern India. *Asian Pacific J Cancer Prev*, **2**, 281-6.
- Nakama H, Kamijo N, Abdul Fattah AS, Zhang B (1996). Validity of immunological faecal occult blood screening for colorectal

- cancer: a follow up study. *J Med Screen*, **3**, 63-5.
- Qin DX, Wang GQ, Zhang XH et al (1996). New concept for cancer screening. *Eur J Cancer Prev*, **5**, 121-4.
- Saito H, Soma Y, Koeda J et al (1995). Reduction in risk of mortality from colorectal cancer by fecal occult blood screening with immunochemical hemagglutination test. A case-control study. *Int J Cancer*, **61**, 465-9.
- Shankar S, Figueroa-Valles N (1999). Cancer knowledge and misconceptions: a survey of immigrant Salvadorean women. *Ethnicity & Disease*, **9**, 201-11.
- Shetty KV, Johnson NW (1999). Knowledge, attitudes and beliefs of adult South Asians living in London regarding risk factors and signs for oral cancer. *Community Dental Health*, **16**, 227-31.
- Shida H, Ban K, Matsumoto M et al (1996). Asymptomatic colorectal cancer detected by screening. *Dis Colon Rect*, **39**, 1130-5.
- Soliman AS, Raouf AA, Chamberlain RM (1997). Knowledge of, attitudes toward, and barriers to cancer control and screening among primary care physicians in Egypt. *J Cancer Educ*, **12**, 100-7.
- Thiemann KM, Frost MH, Thompson RA (1999). A multifaceted educational approach to increasing awareness and use of physician data query (PDQ). *J Cancer Educ*, **14**, 78-82.
- Uche EE (1999). Cancer awareness among a Nigerian population. *Tropical Doctor*, **29**, 39-40.
- Warnakulasuriya KAAS, Johnson NW (1996). Strengths and weaknesses of screening programmes for oral malignancies and potentially malignant lesions. *Eur J Cancer Prev*, **5**, 93-8.
- Warnakulasuriya KA, Harris CK, Scarrott DM, et al (1999). An alarming lack of public awareness towards oral cancer. *Br Dental J*, **187**, 319-22.
- Wilson JL, Stein DS (1997). The impact of public education videotapes on knowledge about cancer. *J Cancer Educ*, **12**, 51-4.
- Yoshida S, Saito D (1996). Gastric premalignancy and cancer screening in high-risk patients. *Am J Gastroenterol*, **91**, 839-43.

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