

Also, in Pellizzer et al⁷ study in Tanzania, most of the cases were reported to be located in urban areas and in crowded families but in the study performed by Chiaramonte et al⁸ in Italy, living area did not affect the prevalence rate of carrier state. To sum up, hepatitis B vaccination program and specific sociodemographic features of this region seem to have resulted in shifting up the average age of hepatitis B carrier state in Khorassan province. Although the most prevalent routes of transmission in Khorassan province have been prenatal and close household contact; further preventive measures aimed at this mainly young and middle aged population is needed to decrease the rate of disease propagation in society.

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Fine needle aspiration of the breast: A call for an organized service

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An outpatient fine needle aspiration (FNA) clinic at Prince Abdulrahman Al Sudairy Central Hospital, Sakaka Al-Jouf, Kingdom of Saudi Arabia (KSA), has

been in place since 1994. The unit is performing FNA of the breast, thyroid, lymph-nodes, salivary gland masses, soft tissue masses and bone lesions. A pathologist takes FNAs, supervises the staining and reports on them. The majority of the cases are referred directly from the specialist clinics and are reported on the same day. Over a period of 8-years, expertise has been gained and FNA has become an integral part of the initial work-up of all superficial masses. During these 8 years (1994-2002), 276 women underwent FNA of the breast in this hospital. Their age ranged from 15-90 years with a mean of 42. Five reporting categories were used; 1. Inadequate, 2. Benign, here a diagnosis of specific condition was offered for example fibroadenoma, fat necrosis, duct ectasia, mastitis, if enough features were present to establish it with confidence, 3. Atypical hyperplasia, probably benign, 4. Suspicious, 5. Malignant.

The FNA smears from 276 patients were reported as inadequate in 6.5 %, benign in 80%, atypical hyperplasia (probably benign) 1.5%, suspicious 0.7% and malignant in 11.3%. All the reported malignant cases (31) underwent definitive surgery either at our hospital or at tertiary referral centre where the FNA diagnoses was confirmed histologically. Thirty-two of the benign cases were operated and confirmed in the subsequent surgical biopsy. Thus, the sensitivity and specificity of FNA in detecting breast cancer in our series reached 100%. As a consequence to this success, the number of second operation (initial diagnostic biopsy followed by definitive surgery) on cancer bearing breast performed in this hospital was reduced by 73% in the first 4-years followed by 90.5% reduction in the next 4-years, after the introduction of FNA. In contrast to that, and over the same period of time, the benign to malignant ratio at open biopsy has increased from 5.5-17.6 and further to 30.5.

Our data demonstrated clearly the indisputable value of FNA in the diagnoses of breast lesions. The main purpose of FNA in the management of breast malignancy is to give a definitive pre-operative diagnosis that allows rapid referral or treatment, ideally in one operative session. This was achieved in all of our carcinoma cases. FNA is safe, rapid, repeatable and cost-effective. It leads to substantial savings in relation to the duration of hospital stay and operating room resources and time. It is an accepted fact that performance of FNA in the diagnoses of breast lesions improves with increased sensitivity and specificity over time.¹ Performed specifically by the pathologist, our inadequacy rate of 6.5% is among the lowest reported.¹ None of our cancer cases had inadequate FNA material. Inadequacy in our hospital was limited to benign cases only. Most of the inadequacy arose from patients with low clinical predictivity for malignancy who underwent FNA mainly for reassurance.

The excellence of our experience and its salutary effect on the management of most masses has been a source of great encouragement. We accordingly call for the

establishment of an effective organized FNA service all over KSA. An organized and efficient FNA service is needed in the KSA for several reasons. The incidence of cancer is increasing world wide. Most of the increase in cancer in the next 25-years is projected to occur in the developing countries, while incidence rates in industrial countries will remain stable or possibly decline, partly due to screening.² In KSA the reported breast cancer incidence is 14/100000.³ It is bound to increase if the above anticipations are correct and FNA would contribute positively to the diagnosis and management. Unlike the findings in western countries, breast cancer in KSA presents late in relatively younger women.⁴ Another important factor is that KSA is a very vast country, where thousands of kilometers separate between its major cities. In KSA, FNA is currently available mainly in tertiary centers and academic institutions. Whether it is present in regional and non-academic hospital is not known. The exact position of FNA in the management of breast diseases in these hospitals is also not known, as local experiences with FNA have not been published, except for a recent report from King Abdul-Aziz University Hospital in Jeddah, KSA.⁵ Its availability in regional hospitals all over KSA would serve 2 main purposes: 1. It would ensure better management of breast cancer either through rapid referral to specialized centers or by offering a definitive treatment in one operative session where facilities are adequate, 2. It would allow expertise to be gained as a prelude to national screening program which is inevitable. This is important as FNA is the method of choice in early detection of cancer following suspicious mammography.

Establishment of FNA service would not impose any additional economic burden than is currently been born for the health need of the nation. Pathology Departments already exist in most secondary care hospitals. All that remains to achieve the service is the acquisition of well trained skilled personnel. This is of utmost importance as the outcome of FNA is operator dependent and errors in the diagnosis may lead to overtreatment or delays the diagnosis. Recruitment of such personnel should depend

on documented experience supplemented by proficiency test. Appropriate guidelines to ensure uniform, standard and reliable service need to be written by a designated body or a committee. Such guidelines should include recommendations as to who are supposed to aspirate, how to prepare the material, adequacy requirements, reporting categories, criteria for evaluation and internal quality assurance. The performance of all laboratories should be closely monitored, and stringent external quality control measures have to be applied. Continuing education programs should be made available including workshops, conferences, courses and secondment to centers of expertise. As a base line, existing services should be encouraged to publish their results.

In this short communication, the importance of widespread, efficient and organized FNA breast service has been emphasized based on our experience in a secondary care hospital. The presence of such service would improve the management of breast cancer and ensure rapid referral to specialized centers. It would also be the very first step in a successful screening program.

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