Dear Sir,

We read with great interest the article by Habib, et al.,1 published in JCPSP volume 19 (10), October 2009 issue, incorporating 99mTc-MIBI for the evaluation of potential palpable malignant breast lumps. As an oncologist, I would like to mention certain limitations and reservations about this study.

The authors have reported a very high sensitivity (93%) for detection of primary breast cancer, which correlated with other published studies in early 90’s. Those earlier single centre studies were limited by referral bias and their focus was only on palpable abnormalities. Same selection bias was seen in this study. More recently, multicentre studies have found sensitivity of 83% for palpable malignancy and 30% for non-palpable malignancy.2

Secondly, for patients with palpable and mammographically visible breast lesions, biopsy is still the gold standard. Would authors defer the biopsy for mammography positive and MIBI negative lesions? I believe tissue diagnosis is still an answer for such indeterminate lesions.

Thirdly, how to do biopsy for the lesions which are mammographically negative and MIBI positive, MIBI scan can give only approximate information about location.

Fourthly, it would be of greater interest, if authors could compare MIBI with Magnetic Resonance Imaging (MRI). Though costly, MRI can detect sub-centimeter occult lesions with malignancy.3

Additionally, the 99mTc-MIBI can be helpful as predictor of response to neoadjuvant chemotherapy as studies have shown multidrug resistant phenotype is associated with increased expression of P-glycoprotein(Pgp); 99mTc-sesta MIBI has strong correlation with Pgp over-expression.4

In conclusion, breast scintigraphy does not help much in clinical practice for palpable or mammographically detected breast lesions.

REFERENCES


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Authors’ reply

Dear Sir,

We wish to thank the Oncologist for taking keen interest in the said article.

First of all, we would like to mention that the population under study had intermediate to high predictability of breast malignancy (already mentioned in methods section) and they were referred to KIRAN (a renowned Oncology centre in Karachi) for the diagnosis and management, so the possibility of referral biases can not be excluded. We had already mentioned in the discussion section of the study that the results were influenced by referral bias. It is wrong to say that published studies of 1990s which showed high sensitivities focused only on palpable lesions. Study performed by Taillefer et al.1, which we mentioned in our article included patients with mammographic and/or clinical masses, the similar criterion we used in our studies. All showed high sensitivities for the detection of breast malignant lesions. In addition, some published studies2,3 of the current decade also showed the high sensitivities for the detection of primary lesions.

Second, we believe it is important that the reader understand the objective of our study, as stated in the article, the objective of our study was to determine the diagnostic accuracy for 99mTc-sestamibi breast imaging. We do not suggest the use of 99mTc-sestamibi breast imaging for screening but rather found that it improved the overall accuracy rate for detection of breast cancer and when used with combination of mammography or sonography, it may provide additional information and gives more accurate diagnosis. However, patients with negative scintimammographic findings and with Bi-rads
1-3 findings on mammogram can be treated safely with short-term mammographic follow-up at intervals not exceeding 6 months.  

Third, the Oncologist has expressed reservation for the localization of abnormalities detected by 99mTc-sestamibi breast imaging that are not detected by mammography. Some of those lesions can be retrospectively detected by mammography and some by sonography. Additionally, studies have been published demonstrating techniques for scintigraphic localization.

Fourth, we think that argument regarding comparison of MRI and MIBI scintigraphy was not the objective of the study because we did not have MRI facility in our setup at that time. Regarding detection capacity of MRI, we agree that MRI can detect sub-centimeter occult lesions with malignancy but MIBI Scintigraphy is much more economical and widely available. Furthermore, SPECT MIBI imaging and high resolution MIBI scintigraphy provides promising results for the detection of sub-centimeter malignant lesions.

Concerning, prediction response to chemotherapy by MIBI Scintigraphy, we would again clarify that it was not the objective of the study.

In conclusion, we would say that 99mTc-sestamibi breast imaging is a valuable, non-invasive complementary test. It should be used selectively and continue to be useful to the clinician faced with a diagnostic dilemma.

REFERENCES


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Perinatal Mortality Contributors in Singleton Gestation

Dear Sir,

I read with great interest, the above article published in JCPSP November 2009, Volume 19 (11), with the challenging conclusion “Parity and fetal weight have an insignificant effect on perinatal mortality”.

1. The association between birth weight and infant survival is among the strongest seen in the whole of epidemiology. Neonatal mortality increases with decreasing gestational age and birth weight. Each additional week of gestation and 100 grams increase in birth weight results in large reductions in mortality risk. Even in pre-term babies with birth weight ≤ 3rd percentile, mortality and morbidity are increased. The authors have not discussed as to why their conclusion is deviant from the established fact in the literature.

2. In the discussion, the authors have stated: "A majority (70%) of perinatal deaths occurred in babies weighing < 2.5 kg, while 45% of SB and 57% of NNDs occurred in babies weighing < 1.5 kg." This in itself negates their conclusion. Had the authors presented their complete data, both in absolute numbers and proportions, it would have been easy to verify their conclusions. The birth weight stratification in Table III is very simple and basic. The proportions calculated (38%, 38% and 14%) are incorrect. The actual proportions would be 38.3, 48.9 and 12.8. Had the authors given the total number of births in each birth weight category, it would have been possible to verify the calculated p-value.

3. In Table III, the number of post-term still births (n=3), post term deaths (n=2) and > 35 years neonatal deaths (n=3), are all < 5 absolute numbers. In principle, chi-square test is invalid if any of the absolute value is < 5. How the authors could calculate a p-value in this comparative proportion?

4. Though the authors have reported low frequency of congenital malformations in their study and provided some local references; according to the most recent international data, Pakistan, along with some Middle Eastern countries, has one of the world's highest incidence of congenital malformations. Pakistani babies born in UK have higher perinatal and neonatal mortality rates as compared to White British babies; the main reason being high incidence of lethal congenital malformations among Pakistani population in UK. I would have expected the authors to discuss this aspect of perinatal loss in Pakistan.

5. The standard international definition of perinatal mortality is a sum of still births and early neonatal deaths (0-7 days of life). Instead, the authors have chosen the definition of still births plus neonatal deaths (0-28 days). This has not only given a false high perinatal mortality rate in their conclusion; it has also made a head-to-head
comparison with the standard data base very difficult. At
the end of the result section the authors have stated
"Early neonatal mortality in preterm babies was high but
statistically not significant (p=0.016)"; though there is no
mention of any absolute numbers or proportions of early
and late neonatal deaths anywhere else in the
manuscript. These are very important figures which
should not have been omitted. In addition, the p-value is
significant if the usual standard of < 0.05 is taken as a
cut off point. In Table III, the p-value for gestational age
is also 0.016, which the authors have taken as
significant in their conclusion. The manuscript should
have a harmony and consistency in its statistical cut offs.

6. It would have been a better conclusion to state that
the high mortality of term and normal birth weight babies
due to birth asphyxia was an ongoing red sign of poor
obstetric coverage of pregnancies in Pakistan which
needs urgent attention at the national level.

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born Pakistani babies have high perinatal and neonatal mortality

Authors’ reply

Dear Sir,

Thank you for showing interest in our article. The reply
to the objections are as follows:

1. The two factors had statistically insignificant effect
in this study with reference to the objective. It may also
be due to sampling criteria, operational definition or the
study centre’s peculiar clientele as explained later.

2. It is a typographical error, and we regret it.

3. For all the cells with value < 5, Fischer exact test
was employed. This is automatically done by software
and was considered understood. However, we regret the
omission of explicit statement.

4. We have reported and discussed what was found
in Pakistani babies born in a public sector Pakistani
hospital. The findings correspond with another study
conducted in similar situations (reference 10 of the
article). The setting in the present study and in reference
10 are the largest tertiary level public sector hospitals in
Karachi, catering to a low socioeconomic class that
usually goes without adequate antenatal care in early
pregnancies. The fact being contrary to what is seen in
the west is already acknowledged in discussion.

5. The definition used was an operational definition
for the purpose of this particular study.

6. The present obstetrical services available to the
masses in Pakistan is indeed suboptimal. The study
centre caters to the lowest income state that comes to a
hospital only when unavoidable. The dire improvement
required in the state of affairs is already stated in the
conclusion. Overall, the authors fully acknowledge the
possibility of different results had the study centre being
one catering to another socioeconomic class of higher
status and awareness. This is in fact a research
question arising out of these findings.

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