

FUTURE TRENDS

The future is always linked to the present. Among the technologies to be eagerly awaited the most important one is the availability and approval of completely biodegradable stents some of which are under development at present. The role of percutaneous intervention for left main stenosis may be accepted alternate to surgery in future but for that long term data is required. Another important advancement to look forward to is the refinement of trans aortic valve replacement hardware (presently 18 fr) and reduction in incidence of periprocedural strokes with further expertise. Stem cell therapy may be the answer to problem of left ventricular function recovery post primary intervention in acute myocardial infarction but needs to be proved conclusively in large scale trials.

CONCLUSION

The field of cardiology has undergone rapid changes in the last decade. We have more potent drugs, development of new diagnostic techniques, evolution of stent technology with more complex coronary anatomy being treated percutaneously. New valve therapies for high risk patients have emerged and likely to evolve further. Stem cells as always have been an area of active debate and research and continue to intrigue. It can be said that the future looks bright and there is much to look forward to.

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LITERATURE REVIEW

The incidence of renal artery stenosis in the patients referred for coronary artery bypass grafting

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Multivessel coronary disease or peripheral arterial disease is the clinical clue to diagnosis of renal artery stenosis (RAS). RAS is considered equivalent to coronary artery disease in terms of cardiovascular risk. In this study, we evaluated the incidence of RAS in the patients who were proposed to undergo coronary artery bypass grafting (CABG). Diagnostic evaluations of coronary arteriography and renal artery angiography were performed during the same procedure; the patients who were proposed for CABG in terms of CAD anatomy and clinical manifestation were enrolled. RAS was evaluated and a diameter stenosis of $\geq 50\%$ was considered as significant RAS; significant RAS patients were divided into five groups. The five groups of RAS were as follows: (1) unilateral RAS $\geq 50-70\%$, (2) unilateral RAS $\geq 70\%$, (3) bilateral RAS $\geq 50-70\%$, (4) one-renal-artery stenosis $\geq 50-70\%$, contralateral RAS $\geq 70\%$, and (5) bilateral renal artery stenosis $\geq 70\%$. A total of 151 patients were enrolled, and RAS ($\geq 50\%$ stenosis in either or both renal arteries) was identified in 47.02% (71/151) patients. Unilateral RAS $\geq 50-70\%$ was identified in 16.6% (25/151) patients, unilateral RAS $\geq 70\%$ in 4.6% (7/151) patients, bilateral RAS $\geq 50-70\%$ in 7.9% (12/151) patients, one-renal-artery stenosis $\geq 50-70\%$ and contralateral RAS $\geq 70\%$ in 7.9% (12/151) patients, and bilateral RAS $\geq 70\%$ was in 9.9% (15/151) patients. The incidence of RAS was 29.03% (18/62) in patients aged ≤ 60 years, 60% (36/60) in patients aged >60 and ≤ 70 years, and 58.62% (17/29) in patients aged >70 years. The incidence of RAS was significantly higher in patients aged $>60 - \leq 70$, and >70 years than patients aged ≤ 60 years ($P = 0.001$ and $P = 0.007$, respectively). There was a trend that the incidence of RAS in patients with hypertension [HTN, 50.40% (64/127)] was higher than those without HTN (29.17%, 7/24), with $P = 0.056$. The incidence of RAS was 47.02% in patients who were proposed for CABG; bilateral RAS of $\geq 70\%$ was 9.9%. Older age and HTN were associated with RAS in patients who were referred for CABG. This study indicates that the incidence of RAS was high in the patients referred for CABG, and the renal function should be taken care of.

provides an easy way for collecting materials for bacteriological examination. The concentration of organisms in the clinical specimen has a direct relationship with the sensitivity of the ZN stain and a concentration of $\geq 10^4$ organisms/ml would normally guarantee a positive smear. The overall acid-fast bacilli positivity in fine needle aspiration smears can vary from 37.4% to 59.4%^{6,7,25}. In the present study, it was 38.4% of the total cases and in 50% of all culture-positive aspirates. The low sensitivity was probably due to the low concentration of mycobacteria in the aspirate.

Culture reports from different studies^{1,8} detect fine needle aspirates between 39 to 80% positive in the clinically suspected TB-L cases. Our observation also falls in between the reported range (43.1%). However, low sensitivity and extensive time requirements of culture studies limit its usual application. Traditionally, culture followed by a panel of biochemical tests has been used for speciation of mycobacteria but has inherent shortcomings⁹. In the present study, the time consumed for primary isolation on L J media ranges from 4 to 6 weeks and 2-3 weeks by liquid broth based automated BacT/ALERT system. Although BacT Alert 3D system recovers mycobacteria rapidly even this is too long as it is necessary to commence treatment as soon as possible.

These results confirm that PCR from the remainder of fine-needle aspirate could be a good initial diagnostic tool. Given the availability of a thermal cycler, the rest of the procedure has a cost similar to other routine assays for LNTB diagnosis. Therefore, this PCR assay could be of immense utility in redefining research priorities and public health strategies for control and prevention of both human and bovine tuberculosis and it can reduce the need for more invasive diagnostic approaches.

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LITERATURE REVIEW

Maternal Obesity and Pregnancy Outcome: A Prospective Analysis

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Objective: To analyze whether the obese women have an increased risk of pregnancy complications and adverse fetal outcome.

Methods: The longitudinal prospective study was carried out in the Obst and Gynae department, IPGME and R, Kolkata. The study enrolled 422 pre-pregnant obese women with pregnancy as study population and equal number of non obese pregnant mothers as controls. Body mass index (BMI) was $e^{\circ} 30.0\text{kg/m}^2$ and $20\text{-}22\text{ kg/m}^2$ in obese and control group respectively. Results: In comparison to average weight pregnant women, obese pregnant women were at increased risk of gestational diabetes mellitus (19.43 vs 3.79%; $p < 0.001$), pregnancy induced hypertension (12.32 vs 2.36%; $p < 0.001$), pre-eclampsia (8.76 vs 3.31%; $p < 0.001$), preterm labor in less than 34 week gestation (7.58 vs 3.55%; $p < 0.001$), cesarean section (36.72 vs 17.53%; $p < 0.001$), instrumental deliveries (12.32 vs 5.21%; $p < 0.001$) and postpartum infection morbidities (9.95 vs 3.79%; $p < 0.001$). These women were more prone to develop overt diabetes (2.36% vs 0) and chronic hypertension (5.21 vs .47%) in future as well. Neonates of obese women were mostly large for gestational age, macrosomic and they had high incidences of birth injuries, shoulder dystocia, premature deliveries, late fetal deaths and congenital malformations particularly spina bifida, cleft lip, cleft palate and heart defect. Conclusion: As obesity is considered to be a modifiable risk factor, preconception counseling and creating awareness regarding health risks associated with over weight and obesity should be encouraged.