Summary & Conclusion
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Cytodiagnosis of soft tissue tumors, though not encouraged even in the recent past, is currently an accepted procedure particularly when combined with detailed history, clinical examination and radiological investigations.

- During the study period of six and half years, a total of 11,560 cases were subjected to FNAC at the cytology clinic of Department of Pathology, Pt. J. N. M Medical College and associated Dr. B R A M Hospital Raipur.
- A total of 713 cases (6.16%) cases were diagnosed as soft tissue tumors by FNAC.
- Of these 713 cases, 508 (71.25%) were reported as benign and 205 (28.75%) as malignant.
- Lipomas (79.9%), neural (5.9%) and vascular tumors (5.7%) formed the main chunk of benign lesions.
- Majority of the malignant lesions comprised of round cell sarcoma (32.20%), spindle cell sarcoma (22.44%) and rhabdomyosarcoma (11.7%).
- Male patients outnumbered the female patients in both benign and malignant categories with an overall M: F of 1.63:1.
Benign soft tissue tumors were relatively common in third and fourth decade of life (54.7%). Vascular tumors were more common in first two decades of life. Children and young adults share the major burden of malignant soft tissue tumors (75.12%).

Benign soft tissue tumors were roughly equally distributed across all parts of the body with a slight predilection for the upper extremity, head and neck and back (57.38%). The commonest site of involvement of malignant tumors was the lower extremity (41%).

Out of 713 cases of soft tissue tumors diagnosed on fine needle aspiration cytology, in 140 (19.64%) cases tissues were available for histopathological examination. Cytological diagnosis was compared with histological diagnosis.

Histological diagnosis was found consistent with cytological diagnosis in 88.1% and 92.9% cases of benign and malignant soft tissue tumors respectively. The overall diagnostic accuracy rate was found to be 90%.

Sensitivity and specificity for a diagnosis of malignant lesions were 89.6% and 95.1% respectively.

The findings of the present study were also compared with the results of other workers.

To conclude, FNAC is a safe and reliable method of recognizing benign and malignant soft tissue lesions and in most instances histological sub typing is possible. Cytological diagnosis must be based
on strict cytological criteria and well-controlled ancillary techniques. FNAC in routine evaluation of soft tissue lesions requires understanding advances and limitations of aspiration cytology, identification of potential pitfalls, and optimizing of ancillary methods necessary for accurate diagnosis. The final FNAC diagnosis should be correlated to the diagnostic level necessary for the treatment initiation and planning of the further therapy. The optimal use of this technique should be limited to multidisciplinary centers where pathologist/ cytopathologist is a member of the team.