

Discussion

This Discussion reflects on the results and observations of 51 patients operated for intra cranial aneurysms. Of 51 patients 2/3 were females, male to female ratio being 1:2.38. Study from university of Bloemfontein, South Africa also reported female preponderance, male to female ratio being 1:1.6 (1). Studies from 90 Newcastle group also show female preponderance. Data from Rio De Janeiro and another study from Egypt [1] showed comparable to this data.

Age preponderance was seen mainly in age 41-60 yr accounting for 62.7%. Ranganadhan., *et al.* reported 72% in 4-6 the decade [2], Banerji reported 67% [3], while Fox -74% and Stabbert 60%.

Bloemfontein study shows 61.4% in > 40 years affected [4]. Brazil study age group ranged from 5 to 77 years (median age 45.4 years).

Hypertension was one of poor prognostic factor. Sites of aneurysms - common site was ACOM 35.2%, followed by MCA 23.5% and ICA 17.6%. Findings are comparable to Pakarinen [5]/Banerji [3] studies.

In our study 43% patients were in Hess and Hunt grade 1. Grade 2 and grade 3 had 21.5% and 23.5% patients respectively. More than 50% patients were in World Federation of neurological Surgeon's Grade 1.

Most of our patients were operated in period of 8 - 14th post ictal day amounting to 50% of the patients and 5 patients could be operated in the 1st week. As contrast to Inagawa, Lunggren, international coop study where most patients were operated early [6].

Four patients developed preoperative IVH and hydrocephalus and needed preoperative external ventricular drain placement. All of the 4 patients expired. This was found to be statistically significant. Rosengart., *et al.* also found IVH with hydrocephalus to be poor prognostic factor [7].

Post op complications

Post operative ischemic deficits were seen in 14 patients out of which 7 had poor gcs and 7 had focal neurological deficits. 2 patients each developed chest infections, wound infection and hyponatremia. One patient developed meningitis and one developed DVT both of them expired.

Out of 51 patients operated, 33 patients amounting to 65% were discharged without any neurological deficits. 6 patients were

discharged with deficits and 12 patients expired making 23% of the patient population.

Madhukar., *et al.* found comparable results in their study with good outcome in 74.3% and mortality of 20% [8].

Conclusion

Aneurysms were seen mostly in 4th to 6th decade of life with female preponderance. 70% of patients reached the hospital at 7 -10 days after ictus. Majority of patients were in WFNS Gr 1-3. Most of patients operated in late phase. Unfavourable outcome was seen in patients with poor grade, poor gcs, hypertension, patient with hydrocephalus, post op ventilator support. Favorable outcome was seen in 65% at time of discharge and mortality was 23.5%.

Limitations of this study are small number of patients, imaging modalities like angiogram suite, TCD studies not available and follow up not possible due poor patient compliance, 15 patients out of 33 discharge turned up for follow up.

Bibliography

1. Medhat Mostafa and Nader Mohamed. "Evaluation of aneurysm surgery in anterior circulation and Overall Outcome". 16.2(2004).
2. Ranganadhan Mahapatra., *et al.* "129 Cases of intracranial aneurysms a 10 yr study in AIIMS Neurology India". *Neurology India* (1965):42-43.
3. Banerji. "Incidence of intra cranial aneurysms in 5 yr study". *Neurology India* 37 (1989).
4. DJ Louw., *et al.* *Journal of Radiology* (2004).
5. "Pakarinen incidence, etiology, progress of sah, study based on 589 cases in defined population". *Acta Neurologica Scandinavica* 43 (1963).
6. "Inagawa aneurysmal sah in izumcounty of Japan". *Stroke* 19 (1987): 176-180.
7. Rosengart., *et al.* "Prognostic factors for outcome in patients with aneurysmal subarachnoid Hemorrhage". *Stroke* 38 (2007): 2315-2321.
8. Madhukar T., *et al.* "Outcome of intracranial aneurysm clipping: analysis of 35 cases". *International Journal of Advances in Medicine* 2.2 (2015).

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