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A Patient with Semi-membranous Cyst in Leprosy Simulating Nerve Abscess

DR A. T. ROY
Senior Medical Officer (Retd.)
Purulia Leprosy Home and Hospital, W. Bengal, India

Case Notes

Dhanonjoy – a Hindu male of 23 was admitted into this colony in September 1963, as a L_3 case with high bacillary index.

He was anaemic on admission but was built up and made fit for anti-leprosy treatment. Treatment was given continuously and the treatment could be worked up to 150 mgs per week with short stop for two or three times for lepra reaction of minor degree. In January 1965, he started developing ENL – one crop after another came out and the specific treatment could hardly be given.

On 8th March 1965 he showed me one large and two small swellings on and above the middle of the popliteal fossa.

Clinically it appeared to be a nerve abscess and much interest was taken as nerve abscess in lepromatous cases are not common.

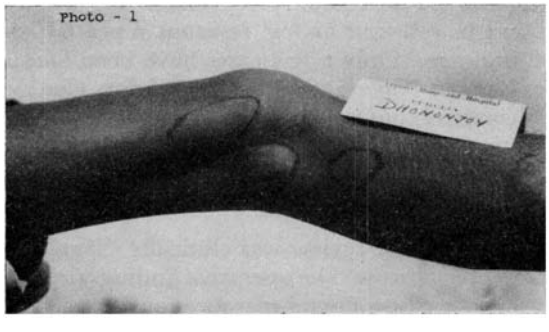

FIG 1 (8th March 1965)
One big and two small swellings on and above the middle of the popliteal fossa

On 10th April 1965 the small swellings disappeared, but the large one became larger.

Operation was decided upon with the following findings:

On incision and light dissection a tense cystic swelling bulged out in the upper part of the popliteal fossa and at the medial side of the mid line. It was easily detachable, but the upper portion became narrower to a pedicle and passed under the medial head of the gastrocnemius. It had no connection with any nerve. A tie was given round the pedicle and the cyst was removed. The case healed up uneventfully.[1]

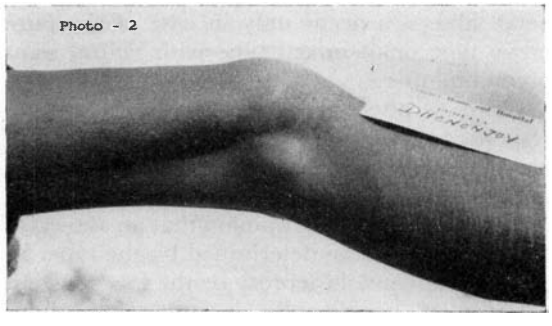

FIG 2 (10th April 1965)
Small swelling has disappeared but the large one become larger

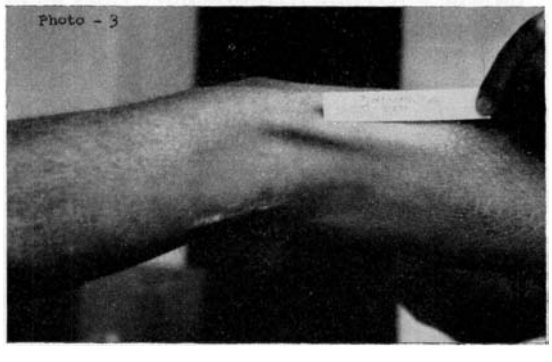

FIG 3
The cyst removed

The cyst was opened subsequently. It contained translucent jelly-like material.

DISCUSSION:

It will not be out of place to recall the history and old discussions of the nerve abscess.

Muir – in 1924 – described two enlargements in the median nerve, one of them contained 10 c.c. of yellowish pus. He remarked that extreme swelling of the nerve often happens when

no other sign of the disease can be found. Pus contained no micro-organism.[2]

Lowe – in 1929 – reported about 2 per cent nerve abscess cases (100 in 5,000), and that these abscesses, Lowe associated with high resistance and the milder forms of the disease and often with lepra reaction. In many there were evidences of skin leprosy, nerve lesions predominating. The content was white or slightly yellowish, a semi solid cheesy substance, this containing lepra cells with lymphocytes, leucocytes.

Lowe also in earlier papers stated that the nerve abscesses occur only in case of the pure nerve type or of mixed type with neural signs predominating.[2]

Lowe – afterwards he prepared notes in response to an enquiry regarding certain cases of nerve abscesses wrote that this condition is seen almost exclusively in pure nerve type cases.[2]

Cochrane – is also of opinion that an abscess of the nerve should be determined by the type. In obvious tuberculoid leprosy or the low resistant variety, or occasionally in the dimorphous group in which the tuberculoid element is in marked ascendancy, swellings and pain of nerves should be investigated for nerve abscess.[3]

Browne – recently recorded three cases all of whom were suffering from major tuberculoid leprosy.

Incidence of nerve abscess – country wise

Wade – is of the opinion that abscess of the nerve is a particularly interesting feature of leprosy in India.

Browne – reported only three cases of nerve abscess out of his 8,000 patients in Eastern Nigeria. In 1957 he reported two instances in some ten thousand leprosy patients seen in the Belgian Congo.[4]

Wheate – has recently drawn attention to the rarity of so called nerve abscess in Africa.

Lowe – in 1929/34 reported an incidence of 2 per cent (100 – 5,000) among 5,000 patients.

Nerve abscess is not infrequent as has been found outside of India.

Multiple abscess in the same nerve are also not very uncommon.

Findings in fluid – it is very interesting to note the differences in findings of the fluid out of the abscess. Muir did not find any micro-organism and the pus caused no infection in guinea pigs. Browne in one of his cases found collection of acid fast bacilli. Lowe also found lepra cells in the fluid along with Leucocytes and Lymphocytes.

Incidence of nerve abscess in the resistance and low resistance cases (tuberculoid and borderline cases) has been agreed by all writers though Lowe once mentioned that in many cases there were evidences of skin leprosy but nerve lesions predominated.

OPERATION

The contents of the abscess should be evacuated in time. Delayed operations have often revealed all the neurons caseated and divided and the continuity of the nerve was only by the nerve sheath. Brand casts doubts on this procedure and says surgical interference causes further damage.[3] In the practical field it does not hold good.

SUMMARY

While nerve abscess are rare outside India, can often be met in India. Nerve abscess are usually found in resistant or less resistant repeated reacting cases. Only a few cases have been found in Eastern Nigeria and in the Belgian Congo. Wheate also has recently drawn attention to the rarity of the so-called nerve abscess in Africa.

CONCLUSION

The case under review was clinically diagnosed as a nerve abscess. The operative findings proved it to be a case of semi-membranous cyst. This confirms the view that nerve abscesses occur in resistant type of leprosy cases only.

REFERENCES

1 *Text Book of Operative Surgery* by Eric L. Farquharson (1962).

2 *International Journal of Leprosy* (1934). **293/294.**

3 R. G. COCHRANE'S *Leprosy in Theory and Practice* (1964), **413.**

4 *Leprosy Review* (1965), **36, 2** – 55/57.