more advanced pregnancies. Cornual excision is better and safer than curetting out the sac followed by packing or suture. Kelly opened a woman's abdomen, made a diagnosis of interstitial pregnancy, and then curetted out the contents from below. Hirst and Farrar, following Kelly's suggestion, have performed similar operations. Kelly does not advocate this operation, and it would seem that cornual excision offers a more speedy method with less danger of serious hæmorrhage and infection. Some surgeons advocate hysterectomy in every case. but this view is certainly too radical." Chabrut<sup>8</sup> reported a remarkable case which might be used as an additional argument in favour of excision rather than curettage. In his case a ruptured interstitial pregnancy occurred twice on the same side subsequent to salpingectomy for sup-The second interstitial purative salpingitis. pregnancy could hardly have occurred had the first one been treated by excision.

### SUMMARY

1. A case of interstitial pregnancy subsequent to salpingectomy for homolateral tubal pregnancy is reported. 2. At least 25 cases have been reported in which interstitial pregnancy has occurred subsequent to homolateral salpingectomy, and of these salpingectomies probably about 40 to 50 per cent had been performed for tubal pregnancy.

3. The diagnosis is difficult but important, and might be made more often if certain points were kept in mind.

4. Prophylactic removal of the interstitial portion of the Fallopian tube has been suggested, but some objection has been raised to the suggestion.

5. Cornual excision is the operation of choice in cases where the pregnant sac is not too large, and supravaginal hysterectomy in the more advanced pregnancies.

#### REFERENCES

- 1. Ash, J. E.: Surg., Gyn. & Obst., 1932, 54: 930.
- 2. D'ERRICO, E.: New Eng. J. Med., 1937, 216: 655.
- 3. RICHARDSON, L. A.: The Lancet, 1930, 2: 296.
- 4. FORMAN, I.: Am. J. Obst. & Gyn., 1939, 38: 344.
- BELLO, A., WIDAKOWICH, V. AND FALSIA, A.: J. Am. M. Ass., 1930, 94: 829.
- 6. NACHE, W.: Centralb. f. Gynäk., 1911, 35: 1345.
- 7. WYNNE, H. M. N.: Am. J. Surg., 1929, 7: 382.
- 8. CHABRUT: J. Am. M. Ass., 1929, 92: 2142.

## A CASE OF TEMPORAL ARTERITIS (HORTON-MAGATH SYNDROME)\*

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WE wish to report a case of arteritis involving the temporal arteries, a clinical syndrome that was first described by Horton, Magath and Brown.<sup>1</sup> It is a comparatively rare entity as Horton and Magath<sup>2</sup> were only able to report 9 authentic cases in the literature prior to 1937.

It was felt that some infectious process or focus of infection might be an etiological factor, and on further consultation it was decided to drain the retention cyst in the tonsil. This was found to contain cellular detritus, and on expressing this material no benefit was noted by the patient.

A week later the pain shifted over to the right side of the face and was of such severity that he once more sought relief. The pain, while intense, was not definitely localized but seemed to be maximal in the region of the right temporo-mandibular joint. We considered the possibility of his dental plates being at fault, and he was referred back to his dentist. After careful examination by his dentist it was decided that the trouble did not lie in the alignment of his dentures.

In the meantime he noticed an increasing anorexia which at the time was attributed to painful mastication. He began to lose weight, and for the first time in his life he found himself glad to lie down and rest.

On December 2, 1939, he was examined again and some swelling was noted in the upper lid along with a slight ecchymosis. For the first time the temporal arteries on the right side were noticed to be quite prominent and very firm and tender to the touch Pulsation was absent and there was some redness along the course of the vessels. His hæmoglobin was 83 per cent; erythrocytes 3,400,000; leucocytes 12,900. An x-ray of the skull and sinuses taken at this time was reported as negative. A careful examination of the ocular fundi revealed no abnormalities.

On December 4, 1939, the temporal vessels on the left side were found to be prominent, indurated and inflamed (Fig. 1). At this time the correct diagnosis was suspected, and a biopsy was done. Drs. M. E. Hall, J. W. MacGregor and J. J. Ower kindly examined

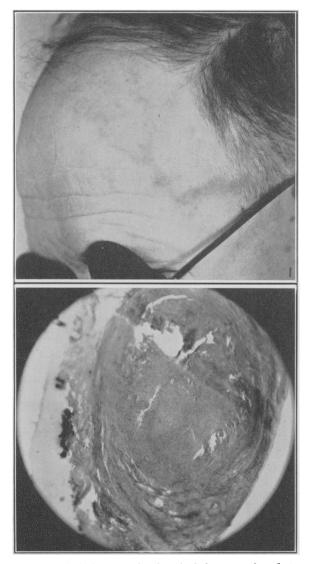
Our case is that of a Scotch contractor, 66 years of age, who was first seen on November 21, 1939, complaining of pain in the left side of his face. The pain was considered at first to be due to an atypical temporal neuralgia. He had enjoyed good health until about one month previous to consulting us.

On examination he was found to be a rather slender, poorly nourished man. He had undergone complete dental extraction several years before. His tonsils were small and fibrotic, and there was a small retention cyst in the substance of the left tonsil. His blood pressure was 150/85; the pulse rate was 52 with numerous extra systoles. No tenderness or palpable masses were felt in the abdomen, and on rectal examination he was found to have a moderately enlarged prostate gland.

<sup>\*</sup> This article was submitted from the medical and surgical divisions of the Baker Clinic, Edmonton.

the sections of the artery and reported that there was a generalized thickening of all the coats (Fig. 2). The muscular layer was practically entirely replaced by fibrous tissue, irregularly placed and to such an extent that there was almost complete obliteration of the lumen of the vessel. Throughout there was rather extensive lymphocytic infiltration and in some areas giant cells of the foreign body type were seen. The findings were very similar to those described by Horton and Magath.

His condition did not improve, and the pain was of such intensity that he was unable to rest even with the help of mild analgesic drugs. His course was downhill and because of increasing anorexia he became very dehydrated, and on December 17, 1939, hospitalization was advised.



On admission to the hospital he was found to run a low-grade febrile course. His hæmoglobin determination was 60 per cent, erythrocytes 4,240,000, leucocytes 9,350, polymorphonuclears 58 per cent, lymphocytes 38, basophiles 1, eosinophiles 3. His urinalysis was essentially negative. The site of the biopsy healed without incident. The pain in his scalp however was quite intense. He insisted on having an ice cap to the scalp all the time. It was necessary to give opiates at regular intervals. He was put on a high vitamin dietary regimen along with iron, and because of his poor fluid intake daily administration of glucose in saline was carried out intravenously. After a week of hospital observation he was sent home. It was apparent his convalescence was going to be a long tedious one. He was a most co-operative patient, and was quite reconciled when it was pointed out that his condition would probably take many weeks to improve, judging by the reports of similar cases.

His recovery proceeded slowly. He was forced to stay in bed at home for several weeks, during which time his appetite was very poor and his weight continued to drop off. In spite of iron medication his anæmia persisted. His mental processes, ordinarily quite alert, became very sluggish, and some of his friends wondered if he had sustained a slight cerebro-vascular accident.

On March 7, 1940, he was examined again. The inflammatory reaction in the arteries had apparently subsided considerably. The arteries were thickened and indurated but the tenderness had disappeared. His hæmoglobin had increased to 71 per cent and the leucocyte count was 11,200. The sedimentation rate (Cutler method) was found to be 28 mm. He was only able to get up and about part of the day.

Examined again on April 9, 1940, he was showing gradual improvement, but still complained of being rather weak. His hæmoglobin determination was 74 per cent and sedimentation rate 15 mm. By April 23, 1940, he had regained much of his former weight, and while not ready to return to work was making plans to do so within a month's time. A noticeable improvement in his mental attitude was apparent on this visit, but it was evident that his mental alertness had not returned to its previous state.

### DISCUSSION

It is possible that this syndrome is not so rare as published reports would lead us to believe, and as its clinical features become better known many other cases may come to light. The case described here certainly seems to meet all the criteria set up by Horton and Magath,<sup>2</sup> *i.e.*, its incidence in the 5th and 6th decades, the prolonged febrile course, loss of weight, anæmia, anorexia and leukocytosis.

The symptoms at the onset of this case were so vague and unusual that it was extremely difficult to be certain as to the nature of the complaint. At first the pain simulated temporal neuralgia; next it appeared to be typical of a temporo-mandibular arthralgia. This led to numerous consultations with his dentist who was unable to discover any apparent cause. The question of sinus infection was considered and was ruled out after transillumination and complete x-ray studies had been made.

While all these studies were being carried out it soon became apparent that some debilitating condition was present, as evidenced by an increasing anorexia and anæmia. These symptoms may be indicative of a widespread vascular lesion, of which the temporal arteries are possibly only a small part. Horton and Magath<sup>2</sup> have suggested that involvement of the deeper cerebral arteries may account for the persistent headache. An observation we wish to emphasize in this report is the marked mental dullness evident in this patient during the height of his illness. This was observed by his wife and close friends, and was so marked that it did not seem possible to explain it on the basis of general debility. Moreover, since his recovery it is apparent that he is much slower in his thought and actions than he was previously, not unlike a residual encephalitis.

This condition must be differentiated from at least three recognized disease entities.

1. Periarteritis nodosa; this condition, once established, is more or less rapidly progressive and usually terminates fatally in a matter of a few months. Moreover, pathologically, the microscopic picture is that of an acute inflammatory process involving the adventitia and muscular coats, with the result that aneurysmal sacs are often formed, whereas the lesion in this condition is characterized by a chronic proliferative change in the intima with thrombosis. The presence of giant cells does not seem to be a common finding in periarteritis nodosa. Moreover, the lesion in periarteritis nodosa is localized to small segments while the lesion in the other type of arteritis tends to be diffuse in its distribution. Another important differentiation is the intermittent course of inflammatory reaction in periarteritis nodosa in contradistinction to the slowly progressive increase followed by a decline in inflammatory reaction seen in this condition.

2. Thrombo-angeitis obliterans is a lesion that might conceivably be localized to the frontal area; more and more attention has been paid lately to its presence in arteries other than those of the extremities. The age-group in which it is most commonly seen is much younger than that described in the type under consideration.

3. Rheumatic arteritis also must be considered

but from our studies of published reports this is primarily a disease of young persons.

It would appear that Horton, Magath and Brown<sup>1</sup> are justified in calling this a distinct clinical syndrome. Cases have been reported from various parts of the world. Horton and Magath<sup>2</sup> in 1937 reported 9 cases in the literature, 7 of which they had observed themselves. MacDonald and Moser<sup>3</sup> have reported another case from this continent. Since then Jennings\* has reported two cases observed in England, and Thevenard<sup>5</sup> has reported a case from France which would seem to fulfil the criteria for this diagnosis.

To date a total of 13 cases have been reported in the literature which has been available to us. We would like to add this case to the records so as to bring this syndrome to the attention of others who may be confronted with a similar array of symptoms.

### SUMMARY

1. Another case of temporal arteritis is presented.

2. Its symptomatology and course are outlined.

3. Its differentiation from other arterial diseases is indicated.

4. The possibility of permanent cerebral involvement is suggested in this case.

#### References

- HORTON, B. T., MAGATH, T. B. AND BROWN, G. E.: Arteritis of the temporal vessels, Arch. Int. Med., 1934, 53: 400.
  HORTON, B. T. AND MAGATH, T. B.: Arteritis of the temporal vessels: report of seven cases, Proc. of the Mayo Clinic, 1937, 12: 548.
  MACDONALD, J. A. AND MOSER, R. H.: Periarteritis and arteritis of the temporal vessels; a case report, Ann. Int. Med., 1937, 10: 1721.
  JENNINGS, E. H.: Arteritis of the temporal vessels. The Lancet, 1938, 234: 424.
  THEVINARD, M.: Syndrome nevralgique, cranio-fronto-temporal, d'origine sympathique: resection de l'artère temporale superficielle, Bull. et mém. de la société des Chirurg. de Paris, 1939, 31: 136.

In this country (England), in the reign of Charles II, Dr. Jonathan Goddard obtained £5,000 for disclosing his secret for making a medicine called "Guttæ Anglicanæ". And in 1739 the Parliament of England voted £5,000 to Mrs. Stevens for a solvent for stone; notwithstanding which there have been as many human calculi since formed by his majesty's liege lithotomical subjects as would macadamize one side of Lincoln's

Inn Fields. The celebrated David Hartley was very instrumental in procuring this grant to Joanna Stevens. He obtained also a private subscription to the amount of £1,356, published one hundred and fifty-five successful cases, and, by way of climax to the whole, after eating two hundred pounds weight of soap David himself died of the stone!-William Wadd, Mems., Maxims, and Memoirs, London, 1827.