TREATMENT OF THE DISTURBANCES OF THE T.M. JOINT BY MEANS OF THE BITE-REHABILITATION *)

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Referring to my previous lecture on the Physiology of the Temporo-Mandibular joint, I now want to describe some disturbances in the same, as well as s.c "referred pain" in the environment of the joints, where the cause has been found in faulty occlusion, and where a detection and correction of this cause has given a lasting cure for the joint troubles.

First I want to give you a short report of an investigation, undertaken by myself some few years ago.

Material

The case series was made up of patients of the author's private practice together with those remitted to him for diagnosis and suggested treatment.

It should be pointed out that the very fact that these patients were referred for specialist attention implies that the degree of severity of the cases was considerably greater than that which would apply to the clientele of an average private practice. In this material there is a higher percentage of, for example, deep bite cases and malocclusions of a more serious nature than is generally met with. It should be added that the temporo-mandibular disorders and disturbances of articulation were probably the reason for the remission of these cases.

The following thinning out of the material was found necessary:

1. Only those cases were accepted where an X-ray examination had been performed at the beginning — these amounting to about 300.

Bite analyses with casts mounted in individually adjustable articulators were performed in all practically cases.

2. Of these 300 the only cases included in the investigation were those where the patients either personally sought advice on, or were found on examination to *present symptoms from, one or both of the joints — 83 cases in all.*

3. As the case series covers some 18 years it has unfortunately not been possible to re-examine and obtain information on all of them; some have moved to new addresses, others have died, etc. The material was thus further reduced *to 58 cases*, all of them fully checked.

Results

The results of the investigation summarised here are concerned only with the strictly dental causes.

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*) Summary of a paper read for the Ned. Vereniging van Tandartsen.

The 58 cases comprised four times as many women as men (45 to 13). The age ranges were 16—68 for women and 17—55 for the men.

Striking points about the case series are: *that a complete and established positive result was obtained in all the cases where a direct dental cause could be shown.* (Total 40 cases). There are then first the cases where malpositioning of the lower jaw occurred through faulty occlusion, i.e. *where a deviation of the median line of the lower jaw occurred* in habitual centric occlusion. Lateral displacement of the mandible is far more common *than distal displacement,* both in this limited case series and among the whole of the author's clientele. *Total 18 cases.* These were distributed as follows:

12 cases were treated with permanent bridges in connection with correction of occlusion

6 cases were treated exclusively by grinding of the bite (1 case with simultaneous focal infection is excluded).

In addition to these there are the cases without deviation from the median line:

14 treated with permanent bridges

I supplied with temporary splints (3 cases with complicated symptoms have been excluded)

13 cases were treated only symptomatologically — with heat, diathermy, short wave or similar therapy and as much rest for the joint as was possible (easily masticated food with liquids for the first days). Caution against wide and heavy biting.

7 of these cases did not present deviaton of the median line on biting together in HC. *Treatment yielded a positive result* in all cases. Of two of these, occlusal trauma was found in one case and a fractured mandible through an accident in the other. In the remaining cases, the trouble must be attributed to the disc. In all the remaining 6 cases in this group a deviation of the lower jaw was associated with the opening movement. *Of these, two gave a completely positive result, and two an obvious improvement* after heat treatment, while the last two cases gave no results. Here it was clear that other causes, general disorders of the joints and severe naural-gia existed.

In 7 cases no dental treatment was given at all and they could therefore not be included in this connection.

Of the total of 50 treated cases with disorders of the temporo-mandibular joints, 42 responded with completely satisfactory results. Purely dental causes were therefore at the basis of the trouble.

In 4 cases the clinical picture was dominated by quite different causes so that attempts at dental therapy yielded no result.

In 4 cases dental therapy resulted in an obvious improvement.

Conclusion

In those cases of arthrosis of the temporo-mandibular joint where dental causes could be established, such as, for example, incorrect cuspal guidance of the lower jaw — either laterally or sagitally it is reasonable if this is diagnosed through bite analysis and X-ray of the temporo-

mandibular joint, and then corrected, to expect a disappearance of the disorder and a permanent cure.

In those cases where no definite dental cause could be established but where instead neuralgic symptoms dominated the picture, one cannot except any improvement through dental therapy.

Symptomatic heat treatment and rest may yield satisfactory results in such cases, while in others, a radical neuro-surgical approach might be required in order to relieve the patient of frequently severe pain.

In those cases where a dental cause can be established with certainly, three possible modes of treatment are open to consideration:

1. The mandible may be returned to its correct central position by *grinding the dentition*, when existing obstructions to sliding are removed and smooth articulation obtained.

2. If the bite at the same time requires reconstruction this can be effected with permanent prothetic appliances — fixed or removable —, or a combination of the two types.

Both these alternatives can be expected to yield lasting results.

3. The third possibility is to bring the mandible into the correct position with *temporary splints* alone, and to retain it there until such time as the symptoms have disappeared. As far as the third method of treatment is concerned the author is unable to pronounce a judgement since, as pointed out above, on account of the selective nature of the case series, such treatment was only resorted to in exceptional cases. Furthermore it was only applied in those cases where it was quite uncertain from the start whether dental therapy had any chance at all of success.