

AN INQUIRY ABOUT SYMPTOMS AFTER CALDWELL-LUC'S OPERATION

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In a paper presented at Tokyo International Congress of Oto-rhino-laryngology in 1965 on results of the Caldwell-Luc operation, a very high percentage of unsatisfactory results was reported (Kortekangas 1966). Many of the subjects of the series who had earlier had a Caldwell-Luc operation were persons who had for some reason visited the out-patient department of the Oto-laryngological University Clinic of Turku. An examination including the taking of bacteriological and biopsy specimens was performed on each subject. The main comments on the series of 29 subjects with 45 operated sinuses were:

1. Every second patient had signs of permanent inflammation of the operated sinus or sinuses.
2. A respiratory pathogen bacterium was found in the secretion of almost every sinus with permanent inflammation but not in the sinuses of the recovered subjects.
3. Inflammatory changes were noted in biopsy specimens from almost every sinus irrespective of the success of the operation. Consequently histopathological examination of a small piece of the mucosa of the operated sinus does not reveal the existence or non-existence of inflammation.
4. The regenerated epithelium was of the respiratory type in every specimen.
5. Allergy seemed to play only an insignificant role as a cause of permanent or recurrent inflammation in an operated sinus.

As the above series could not show the incidence of recoveries and failures in an unselected series, the present study was undertaken. A questionnaire was sent to all subjects who had been operated upon by Caldwell-Luc's procedure about five years earlier. The symptoms and the questions asked will be presented in connection with the results of the study. Answers were received from 35 subjects, 18 of whom had been operated bilaterally and 17 unilaterally. The indication for operation had been chronic maxillary sinusitis that had not responded to conservative therapy. Two cases of dental inflammations are included as a strict sequence was desired. The ages of the patients at the time of operation varied from 17 tot 59 years. Most of the patients had suffered repeatedly from sinusitis before operative treatment was decided upon. The problem of the details of the operation, such as the total or partial removal of sinus mucosa, is not considered in this connection as no significant differences were noted in the success of the operation despite differences in details of the operative technique.

The first question of the questionnaire was about the general result of the operation. The subjects were asked to define the result as one of the following

three alternatives: 1. complete recovery, 2. operated sinus generally free of symptoms, but temporary symptoms are considered to be due to recurrences, 3. persistent or repeatedly appearing symptoms made the subject consider the sinus operation useless. The distribution of the answers is given in Table 1. In the case of twelve or 23 per cent of the 53 sinus operations the operations were considered useless as a curative procedure by the operated patients after a postoperative period of five years.

Table 1. Opinions of Subjects about the General Results of the Caldwell-Luc Operation.

	Unilateral	Bilateral
Complete recovery	8*	4
Recovery with temporary recurrences	7*	9
Failure	4	4

* Divergent result stated by one bilaterally operated subject.

Table 2. The Occurrence and Duration of Immediate Postoperative Symptoms.

	Unilateral	Bilateral
PAIN AND ACHE		
Insignificant	7	4
Duration less than 4 days	4	4
Duration 5—30 days	2	4
Duration longer than 30 days	2	2
No opinion recorded	2	4
POSTOPERATIVE DISCHARGE		
Insignificant	10*	4
Duration less than 2 weeks	1	2
Duration 2-4 weeks	2	2
Duration less than 2 weeks	1	2
Continuous discharge	5*	5
No opinion recorded	1	4
TENDERNESS AND LOSS OF SENSITIVITY IN THE UPPER JAW		
Insignificant	4	—
Duration less than 2 weeks	3	3
Duration 2—4 weeks	3	3
Duration 1—6 months	4	4
Duration longer than 6 months	3	4
No opinion recorded	—	4

* Divergent result stated by one bilaterally operated subject.

Table 3. The Effect of the Caldwell-Luc Operation on Colds.

	Unilateral	Bilateral
FREQUENCY OF COLDS		
Lower	6	7
No significant change	10	11
Higher	1	—
RECOVERY FROM COLDS		
Significant improvement	5	8
No significant change	10	8
Less rapid	2	2

Table 4. The effect of the Caldwell-Luc Operation on Pain and Ache Associated with Acute Respiratory infections.

	Unilateral	Bilateral
No pain before operation	4	4
Complete recovery	6*	6
Significant improvement	6	2
No significant change	2*	4
Deterioration	1	1

* Divergent result stated by one bilaterally operated subject.

The next question concerned the immediate postoperative symptoms such as local pain and ache, discharge, tenderness and loss of sensitivity in the operated jaw. Table 2 shows the incidence of these symptoms. Ten of the 35 subjects reported pain that persisted over the period of hospitalisation and four of the subjects reported disturbing pain over more than one month after the operation. The operative technique varied to some extent, but the slight differences did not seem to bear any relation to the incidence and duration of postoperative symptoms. There was no difference in the incidence of symptoms classified according to Table 2 between cases with a radical and those with a conservative exenteration of the sinus mucosa. Many of the subjects reported a favourable effect on the incidence of colds following the operation (Table 3). A favourable effect on pain associated with acute respiratory infection was reported by the majority of the subjects (Table 4).

DISCUSSION

The main purpose of this study was to determine whether the very high incidence of failures of Caldwell-Luc operation in the earlier, to some extent selected, series (Kortekangas 1966) was confirmed by the study of a series of consecutive operations. Twenty-three per cent of the patients of this consecutive series reported that they had had no significant benefit from the operation. The corresponding percentage in the earlier series was 29. However, when the result was judged by the author on the basis of all symptoms and the clinical findings in the follow-up examination every second operation was considered to have been unable to cure the sinusitis. The incidences of different symptoms in the present series indicated that a higher proportion than 23 per cent must be the real incidence of cases that are not cured by Caldwell-Luc operation. That often clearly disturbing symptoms are not considered by the patients to be a sign of failure is an indication of an unwarranted positive attitude towards operative procedures.

In spite of relative frequent failures, the Caldwell-Luc operation cannot in my opinion be completely abandoned. The Caldwell-Luc operation is often the preferred way to help a patient with chronic sinusitis and its value in cases of suspected malignancy must be kept in mind. What we learn from these figures is that so far a permanent cure cannot be said to follow this operation, as is still often stated preoperatively. Of course, detailed analysis of a large series is required to reveal the reasons for the failures and the appropriate indications for different procedures.

SUMMARY

35 subjects operated in sequence by the Caldwell-Luc procedure, 18 bilaterally and 17 unilaterally, were sent a questionnaire about their opinions of the general result and postoperative symptoms. Eight subjects, 4 bilaterally and 4 unilaterally operated, considered the operation useless as a curative procedure.

RÉSUMÉ

Les 35 malades opérés successivement par la procédure Caldwell-Luc, dont 18 bilatéralement et 17 unilatéralement, recevaient un questionnaire sur leurs avis sur le résultat général et sur les symptômes postopératifs. Huit malades, dont 4 opérés bilatéralement et 4 unilatéralement, ont considéré l'opération inutile comme une procédure curative.

REFERENCE

Kortekangas, A. E. and Laurén, P., 1966: Postoperative Symptoms after Caldwell-Luc Operation. Proceedings of the VII International Congress of Oto-Rhino-Laryngology, Excerpta Medica International Congress. Series No. 113, 609.

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