## ASSESSMENT OF TONSILLECTOMY AS A TREATMENT OF GUTTATE PSORIASIS

\* Khalil I. Hamdi

\* Issam M. Sheraida

#### ABSTRACT

A total of 29 patients with recurrent guttate psoriasis was studied. Their ages ranged between 2-16 years, M: F ratio was 1: 1.2. The recurrence of psoriasis in all patients was strongly related to recurrent tonsillitis and pharyngitis. Beta haemolytic streptococcus was isolated from the throat of 62.06% of the patients, while staph.aureus was detected in 31.03% of them.

Tonsillectomy was done for 19 patients, while the remaining 10 patients were treated with conventional treatment. All patients were followed up for a period of 6-36 months. Majority of patients (63.2%), who underwent tonsillectomy experienced a significant improvement in their psoriasis. They were either completely free of psoriatic outbreak or showed less severe lesions. In addition, the frequency of recurrence was remarkably reduced. The relapse rate was much lower (16.16%) after tonsillectomy in comparison with that after conventional therapy (100%) and within a relatively longer period of follow up. Complete remission was reported only in 20% of those treated with conventional therapy.

In conclusion, tonsillectomy should be considered as an effective treatment of guttate psoriasis, particularly in long standing recurrent cases associated with frequently recurrent tonsillitis.

KEY WORDS: Guttate, Psoriasis, Tonsillectomy

## INTRODUCTION

Guttate psoriasis is a clinical variant of psoriasis characterized by a shower of small oval or rounded lesions covered by a white silvery scales, appearing more or less over the body, particularly in children and young adults after acute streptococcal infections <sup>(1)</sup>.

Tonsillectomy has been described recently as an effective treatment of guttate and to a lesser extent plaque psoriasis (2).

This study was carried out to evaluate the role of tonsillectomy in the treatment of this chronic recurrent disease in comparison with conventional therapy.

## PATIENTS & METHODS

A total of twenty nine patients with guttate psoriasis, consulting the dermatology O.P. department of Saddam and Basrah Teaching Hospitals (South of Iraq) during the period between April 1998 to November 2001, was studied.

All patients were interviewed and inquired about their ages, duration of their disease and its relation to upper respiratory tract infection. They were fully examined for the type, distribution and severity of the disease.

Throat swabs for cultures were taken. Patients who gave a history of strong relationship between their disease and upper respiratory tract infections only were included in this study.

Tonsillectomy was done for 19 patients while the remaining 10 patients were treated with conventional therapy. Tonsillectomy was done for patients:

- 1- With frequently recurrent tonsillitis.
- 2- In whom guttate psoriasis was strongly related to recurrent tonsillitis.
- \* FICMS (D&V)\ College of Medicine\ University of Basrah,\ Iraq-Basrah
- \*\* FICMS (ENT) \College of Medicine\ University of Basrah\, Iraq -Basrah

3- In whom repeated courses of antibiotics failed to reduce the recurrence of tonsillitis and the related guttate psoriasis.

Both groups were followed up for a variable periods to evaluate and compare the effectiveness of both modalities of treatment on the course of the disease and the rates of remission and relapse. Patients who didn't attend for regular follow up were excluded from the study.

## RESULTS

A total of 29 patients with guttate psoiasis were studied. Their ages ranged between 2-16 years with a mean age of 8.3 years. They were 13 males and 16 females with a M: F of 1: 1.2 (Table I).

In all patients studied the recurrence was strongly related to recurrent tonsillitis and pharyngitis or their preexisting psoriatic lesions were excerbated by acute attacks of tonsillitis.

Beta Haemolytic Streptococcus was isolated from the throat swabs of 18 patients (62.06%) while Staph.aureus was detected in 9 patients (31.03%).

Furthermore, no organism was grown from the throat swabs of the remaining two patients (Table 2).

Tonsillectomy was done for 19 patients, while the remaining 10 patients were treated with the available conventional therapy including tar, topical steroid and calcipotriol in addition to UVB and PUVA therapy.

Patients were followed for a variable periods ranging between 6-36 months depending on the time we saw the patient and the date of tonsillectomy.

The majority (63.2%) of patients who underwent tonsillectomy experienced a significant improvement in their psoriasis during the period of follow up. They were either completely free of psoriatic outbreak or showed less severe lesions that were fewer in number scattered here and there with relatively longer period of remission. In addition, the frequency of recurrence was remarkably reduced as it

- J. Basic Med. Sc. Vol.2 No. 2 // 2002

was reported only in 16.6% of the patients within 6 months of follow up. Majority of patients (83.3%) who showed marked improvement and prolonged remission after tonsillectomy had streptococcal overgrowth in their tonsillar cultures.

On the other hand, among patients who were treated with conventional therapy, complete remission was reported only in 2 patients (20%). In others the remission was partial and the recurrence rate was high and rapid. The disease recurred once the patients stopped the treatment or reduced the frequency of its application (Figure 1).

Furthermore, both patients who had remitted after conventional therapy showed relapse of their disease, although with a lesser degree, within 3 months of follow up.

## DISCUSSION

The strong association of guttate psoriasis and streptococcal throat infections is well-established (1,3,4,5). The study confirmed this strong association of guttate psoriasis and the prior infection of the tonsils and pharynx with streptococcal pyogenes and to a lesser extent staph.aursus, as it is reported in the majority of the patients. Streptococcul pyogenes and staphylococcus aureus were found to release super antigens that activate special clone of T lymphocytes which release inflammatory mediators that initiate cutaneous changes responsible for psoriasis (6,7).

Tonsillectomy was assessed as a treatment of recurrent guttate psoriasis, where it was found to be beneficial in the majority of cases, as it induced complete or marked improvement in 63.2% of the patients in comparison with 20% among those treated with conventional therapy. This finding is consistent with other recent studies (2). It is probably because tonsillectomy eliminates a common focus of streptococcal and staphylococcal infections that are said to have a role in the pathogenesis of the disease

The relapse rate after complete remission was much lower (16.6%) after tonsillectomy in comparison with that after conventional therapy 100% within a relatively longer period of follow up indicating that tonsillectomy is superior than conventional therapy on the rate of relapse, too.

tonsillectomy should In conclusion, considered as an effective treatment of guttate and plaque psoriasis, particularly longstanding recurrent cases associated with or exacerbated by frequently recurrent streptococcal and staphylococcal tonsillitis. In addition, further studies in this field are advisable for a longer period of time..

Table 1 showing sex distribution of the patients.

Males	FEMALES
13	16

Table 2 showing the results of throat swab cultures

Streptococcal	Staphylococcal	Others
62.06%	31.03%	6.9%

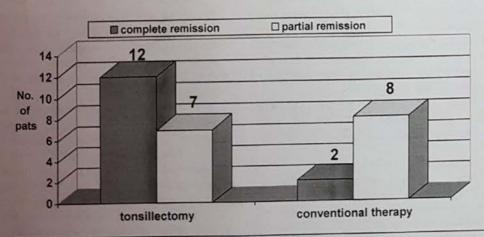


Figure 1 showing a comparison between the outcome of patients treated by tonsillectomy and conventional therapy.

# REFERENCES

- 1-Camp, RDR., Psoriasis in Rook Textbook of Dermatology, Editors R.H. Chmpion, JL. Burton, DA. Burns and SM. Breathna. Sixth edition, Vol. 2, Oxford, Black Well Scientific Publications 1998; p. 1598-1599.
- 2-McMillin, BD; Graham WR. A role for tonsillectomy in the treatment of psoriasis. Ear, Nose, Throat J. 1999 Mar.; 78(3): 155-8.
- 3-Lewis HM, Baker BS, Powlers AV. Restricted T cell receptor V beta gene usage in the skin of patient with guttate psoriasis and chronic plaque psoriasis. British J of Dermatology. 1993 Nov.; 129(5): 512-20.
- 4-Teifer NR; Chalmers RJ; Whale K; Colman G. The role of streptococcal infection in the initiation of guttate psoriasis. Arch Dermatol. 1992 Jan; 128(1): 39-42.

- 5-Baker BS; Bokth S; Bowles A. Group A streptococcal antigen specific T lymphocytes in guttate psoriatic lesions. Br J Dermatol. 1993 May; 128(5): 493-9.
- 6-Leung DY; Travers B; Norris DA. Evidence for a streptococcal super antigen-driven process in acute guttate psoriasis. J Clin Invest. 1995 Nov.; 96(5): 2106-
- 7-Schafer R; Sheil JM. Super antigens and their role in infectious diseases. Adv Pediat Infectious Diseases. 1995; 10: 369-90.
- 8-Horiuch N; Alba S. Peripheral blood lymphocytes from psoriatic patients are hyporesponsive to beta streptococcal super antigen. Br J Dermatol. 1998 Feb; 138(2): 229-35.