

Use of Alcoholic Cautery in Ingrown Toenail

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ABSTRACT

Objectives: To study the effect of alcoholic cautery with surgery in an ingrown toenail.

Study Design: Experimental study

Place and Duration of Study: This study was conducted at the Department of Surgery at Idrees Teaching Hospital Sialkot and Allama Iqbal Memorial Teaching Hospital Sialkot from January 2014 to July 2016.

Materials and Methods: One thousand patients of ingrown toenail were included in this study. The alcoholic cautery was used with surgery in all cases. The procedure of surgery was wedge resection of the toe nail and nail fold. After excision of the affected portion of the ingrown nail fold and nail bed, the cotton swab soaked in 100% methyl alcohol was put on the excision area for 2 -3 minutes.

The performa was designed to record age, sex, socio economic status, area distribution, family history of the ingrown toe nail patients, date of surgery, surgery type, time duration of procedure, stay in the hospital, return to work time and healing time. Patients follow up is also recorded. The fully informed written consent of every patient prior to procedure was also recorded. The data was analyzed by SPSS version 10.

Results: In this prospective experimental study incidence of ingrown toe nail was maximum (55.3%) 553 cases at the age of 14-19 years & minimum (11.2%) 112 cases at the age of 26-30 years. It was seen that the patients of ingrown toe nail were maximum (66.3%) 663 cases of male as compared to female (33.7%) 337 cases. Urban population had (77.9%) 779 cases as compared to rural population (22.1%) 221 cases. The patients of ingrown toe nail were maximum (66.3%) 663 cases in high socio economic status group and minimum (10.4%) 104 cases in low socio economic group. In our study the recurrence of ingrown toe nail after alcoholic cautery was (05%) 50 cases.

The procedure for ingrown toe nail was conducted within 2-6 hours after admission of the patient. The operation time was 30-60 minutes. The patients discharged after operation within 1-3 hours.. The healing time and return to work was 1-2 weeks.

Conclusion: It was concluded that use of alcoholic cautery with surgery in ingrown toenail the recurrences were very much reduced.

Key Words: Alcoholic cautery, Ingrown toenail, Surgery.

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INTRODUCTION

Ingrown Toenail is also known as Onychocryptosis¹. This nail disease is a common and painful. The patients of ingrown toenail fall in teenagers and young adults (second and third decades of life). The pain is the commonest symptom in ingrown toenail. If this disease is left untreated it leads to infection, discharge and difficulty in walking. It greatly affects the quality of life of the patient. Diagnosis of ingrown toenail is very easy and apparent. Number of treatment approaches exists, ranging from a conservative medical treatment to surgical treatment².

In ingrown toenail penetration of spicules of nail at the edge of the nail plate take place, which incite an inflammatory response. The most effected part in case of ingrown toenail is great toes.³

The aetiology of the ingrown toenail can be classified whether the primary fault is the nail itself or the soft tissues at the side of the nail.^{4,5,6} There is one theory that the nail is not the real cause, but the excess skin surrounding the nail is the real cause. ^[6] The persons who develop ingrown toenail have a wide area of tissue medial and lateral to the nail and this tissue due to weight bearing causes, bulge up around the nail, leading to pressure necrosis.^{6,7}

In adolescence and adult, increased perspiration causing the nail fold to become soft and participation in sports result in the production of nail spicules, which can penetrate the lateral skin fold of the nail. In older persons, due to reduced mobility or vision problems spicule formation can be caused.⁷ Risk of developing ingrown toe nail is shape of the nail. In 80% of cases of ingrown toe nail condition is unilateral and mostly affects the males. The poorly fitting shoes and

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improperly trimmed toe nails are main factors for the development of an ingrown toenail.^{7,9,13}

MATERIALS AND METHODS

One thousand patients of ingrown toenail were included in this prospective experimental study in the department of surgery at Idrees Teaching Hospital Sialkot and Allama Iqbal Memorial Teaching Hospital Sialkot during January 2014 to July 2016. The alcoholic cautery was used with surgery in all cases. The procedure of surgery was wedge resection of the toe nail and nail fold. After excision of the affected portion of the ingrown nail fold and nail bed, the cotton swab soaked in 100% methyl alcohol was put on the excision area for 2 -3 minutes.

The performa was designed to record age, sex, socio economic status, area distribution, family history of the ingrown toe nail patients, date of surgery, surgery type, time duration of procedure, stay in the hospital, return to work time and healing time. Patients follow up is also recorded. The fully informed written consent of every patient prior to procedure was also recorded. The data was analyzed by SPSS version 10.

RESULTS

In this prospective experimental study incidence of ingrown toe nail was maximum (55.3%) 553 cases at the age of 14-19 years & minimum (11.2%) 112 cases at the age of 26-30 years as shown in Table no: 1. It was seen that incidence of the male patients of ingrown toe nail was higher (66.3%) 663 cases as compared to female (33.7%) 337 cases as shown in Table no: 2. Urban population had (77.9%) 779 cases as compared to rural population (22.1%) 221 cases as shown in table no:3. The patients of ingrown toe nail were maximum (66.3%) 663 cases in high socio economic status group and minimum (10.4%) 104 cases in low socio economic group as shown in table no:4. In our study the recurrence of ingrown toe nail after alcoholic cautery was (19%) 119 cases as shown in table no.5. The procedure for ingrown toe nail was conducted within 2-6 hours after admission of the patient. The patients discharged after operation within 1-3 hours. The operation time was 30-60 minutes. The healing time and return to work was 1-2 weeks. The patients were called for follow after 1 week.

Table No.1: Age distribution in use of alcoholic cautery in ingrown toe nail

Sr #	Age (years)	Cases	Percentage
1.	14-19	553	55.3%
2	20-25	335	33.5%
3	26-30	112	11.2%
	Total	1000	100%

Table No.2: Sex distribution in use of alcoholic cautery in ingrown toe nail

Sr #	Sex	Cases	Percentage
1.	Male	663	66.3%
2	Female	337	33.7%
	Total	1000	100%

Table No.3: Area distribution in use of alcoholic cautery in ingrown toe nail

Sr #	Area	Cases	Percentage
1.	Urban	779	77.9%
2	Rural	221	22.1%
	Total	1000	100%

Table No. 4: Socio economic status distribution in use of alcoholic cautery in ingrown toe nail

Sr .#	Socio economic status	Cases	Percentage
1.	High	663	66.3%
2	Middle	233	23.3%
3.	Low	104	10.4%
	Total	1000	100%

Table No. 5: Recurrence of ingrown toe nail in use of alcoholic cautery

Sr #	Recurrence	Cases	Percentage
1.	"	50	05%

DISCUSSION

The worldwide common source of morbidity is also ingrown toenail and it has a significant impact on the quality of life of an individual¹⁴. An ingrown toenail requires identification of the stage and evaluation of the affected tissues¹⁵. Recurrent infection, pain and failure of conservative treatment, nail surgery should be considered¹⁶. The clinical situation is important to select the surgical technique, best suited to the patient¹⁷. It was proved by evidence the wedge resection of ingrown toenail combined with the use of alcoholic cautery, was more effective to prevent recurrence of ingrowing toenails¹⁸⁻²⁰.

In this prospective experimental study incidence of ingrown toe nail was maximum (55.3%) 553 cases at the age of 14-19 years & minimum (11.2%) 112 cases at the age of 26-30 years. It was seen that the incidence of male patients of ingrown toe nail was higher (66.3%) 663 cases as compared to female (33.7%) 337 cases. Urban population had (77.9%) 779 cases as compared to rural population (22.1%) 221 cases. The patients of ingrown toe nail were maximum (66.3%) 663 cases in high socio economic status group and minimum (10.4%) 104 cases in low socio economic group. In our study the recurrence of ingrown toe nail after alcoholic cautery was (19%) 119 cases.

The procedure for ingrown toe nail was conducted within 2-6 hours after admission of the patient. The patients were discharged after operation within 1-3 hours. The operation time was 30-60 minutes. The

healing time and return to work was 1-2 weeks. The patients were called for follow after 1 week. It was concluded that the incidence of recurrence of ingrown toe nail was reduced with use of alcoholic cautery with surgery. Our results coincide with study of other authors given in the literature².

CONCLUSION

The evidence suggests that wedge resection of the toe nail and nail bed combined with the use of alcoholic cautery, was more effective at preventing recurrence of ingrowing toenails. Despite innumerable treatment options, ideal technique is still to be invented.

Conflict of Interest: The study has no conflict of interest to declare by any author.

REFERENCES

1. James WD, Berger T, Elston D. Diseases of the skin appendages. In: James WD, Berger T, Elston D, editors. *Andrews' Diseases of the Skin: Clinical Dermatology*. 10th ed. Philadelphia PA: Elsevier/Saunders; 2006. p. 749-93.
2. Baran R, Haneke E, Richert B. Pincer nails: Definition and surgical treatment. *Dermatol Surg* 2001;27:261-6.
3. De Berker DA, Baran R. Disorders of nails. In: Burns T, Breathnach SM, Cox N, Griffiths C, editors. *Rook's Textbook of Dermatology*. 8th ed. Oxford: Wiley-Blackwell; 2004. p. 65.1-65.54.
4. Lathrop RG. Ingrowing toenails: Causes and treatment. *Cutis* 1977;20:119-22.
5. Rounding C, Bloomfield S. Surgical treatments for ingrowing toenails. *Cochrane Database Syst Rev* 2005;2: CD001541.
6. Chapeskie H. Ingrown toenail or overgrown toe skin? Alternative treatment for onychocryptosis. *Can Fam Physician* 2008;54:1561-2.
7. Langford DT, Burke C, Robertson K. Risk factors in onychocryptosis. *Br J Surg* 1989;76:45.
8. Pearson HJ, Bury RN, Wapples J, Watkin DF. Ingrowing toenails: Is there a nail abnormality? A prospective study. *J Bone Joint Surg Br* 1987;69: 840-2.
9. Hendricks WM. Congenital ingrown toenails. *Cutis* 1979;24:393-4.
10. Kreft B, Marsch WC, Wohlrab J. Congenital and post partum unguis incarnati. *Hautarzt* 2003;54: 1083.
11. Tosti A, Piraccini BM. Biology of nails and nail disorders. In: Wolff K, Goldsmith LA, Katz S, Gilchrist B, Paller A, Leffell D, editors. *Fitzpatrick's Dermatology in General Medicine*. 7th ed. New York: McGrawHill; 2007.p.778-94.
12. Katz A. Congenital ingrown toenails. *J Am Acad Dermatol* 1996;34:519-20.
13. Cambiaghi S, Pistrutto G, Gelmetti C. Congenital hypertrophy of the lateral nail folds of the hallux in twins. *Br J Dermatol* 1997;136:635-6.
14. Riviera A. Risk factors for amputation in diabetic patients: A case controlled study. *Arch Med Res* 1998;29:179-84.
15. James CW, McNelis KC, Cohen DM, Szabo S, Bincsik AK. Recurrent ingrown toenails secondary to indinavir/ritonavir combination therapy. *Ann Pharmacother* 2001;35:881-4.
16. Bourezane Y, Thalamy B, Viel JF, Bardonnnet K, Drobacheff C, Gil H, et al. Ingrown toenail and indinavir: A case control study demonstrates strong relationship. *AIDS* 1999;22:2181-2.
17. Baran R. Retinoids and the nails. *J Dermatol Treat* 1990;1:151-4.
18. Nicolopoulos J, Howard A. Docetaxel- induced nail dystrophy. *Australas J Dermatol* 2002;43: 293-6.
19. Higgins EM, Hughes JR, Snowden S, Pembroke AC. Cyclosporin-induced periungual granulation tissue. *Br J Dermatol* 1995;132:829-30.
20. Weaver T, Jespersen D. Multiple onychocryptosis following treatment of onychomycosis with oral terbinafine. *Cutis* 2000;66:211-2.