

# Case-control study of determinants of corrective upper eyelid surgery refusals among trichomatous trichiasis patients in Ethiopia

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## Abstract

**Background:** Repeated infection with *Chlamydia trachomatis* causes trichomatous trichiasis (TT). Surgery is the main and preferred method of treatment. However, many people decline surgery despite the availability of free services in nearby health facilities.

**Aimz:** To identify the determinants of surgery refusal among TT patients in Ethiopia.

**Methods:** This community-based, case-control study was conducted among 338 cases and 338 controls from 5 October to 17 December 2018. Using systematic random sampling, we selected people who had been operated on (controls) and those who refused surgery (cases) from registration documents and used a pre-tested, interviewer-administered, structured questionnaire for data collection. We used SPSS version 23 to analyse the data and used multivariate logistic regression to identify the determinants.

**Results:** Having witnessed a poor surgical outcome [adjusted odds ratio (aOR): 3.51, 95% CI: 1.94–6.35] and lack of knowledge about TT (aOR: 1.77, 95% CI: 1.18–2.65) increased the refusal rate for surgery. Having trust in the surgeon (aOR: 0.26, 95% CI: 0.15–0.45), knowledge about eyelid surgery (aOR: 0.32, 95% CI: 0.16–0.64), long duration of trichiasis (aOR: 0.50, 95% CI: 0.31–0.79), decision-making via discussion with the family (aOR: 0.29, 95% CI: 0.13–0.64), frequent epilation (aOR: 0.31, 95% CI: 0.17–0.60), and receiving personal advice (aOR: 0.11, 95% CI: 0.04–0.28) reduced refusal rates.

**Conclusion:** Refusing to have TT surgery was significantly related to knowledge about upper eyelid surgery, past surgical outcomes, decision-making capacity, and personal influences. Improved systems for upper eyelid surgery should be established in Ethiopia to better manage, and reduce unfavourable, surgical outcomes, and reduce surgery refusal.

Keywords: trichomatous trichiasis, upper eyelid surgery, surgery refusal, trachoma, eye health, Ethiopia

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## Introduction

Trachoma, a highly contagious infection caused by the bacteria *Chlamydia trachomatis*, is the most common cause of eye infections and the eighth most common cause of blindness worldwide (1,2). Repeated infection over many years produces scarring of the inner part of the upper eyelid, which turns the lashes inwards so that they scratch the cornea. When the eyelashes rub on the eye, the condition is called trichomatous trichiasis (TT). Scarring of the cornea impairs vision and causes blindness. Blindness due to trachoma is irreversible once it has occurred, but it can be prevented (3,4).

Trachoma is a public health problem in 42 countries. In 2022, around 125 million people were at risk of blindness due to trachoma and about 1.9 million were either irreversibly blind or visually impaired. Trachoma causes about 1.4% of all blindness worldwide (5). The estimated total global burden for TT in June 2022 was 1.7 million (6).

Surgery to correct TT is the main and preferred method in all trachoma blindness control programmes

in endemic countries, however some patients – those without entropion (inward turning of the eyelid) and having just a few eyelashes in the periphery – can be managed with epilation (pulling out the eyelashes) (7–9).

Countries will be considered to have eliminated trachoma as a public health problem when they have achieved the goal for TT at district level: < 1 case per 1000 total population of trichiasis cases unknown to the health system (10).

In previous years, only 50% of the annual global surgical targets have been achieved. Among the reasons cited by patients for not having the surgery were: lack of time, unavailability of the service, financial constraints for direct and indirect costs, fear of surgery, lack of knowledge and lack of awareness (11–14). Elimination of trachoma as a public health problem is covered in the neglected tropical diseases 2021–2030 roadmap, which targets global elimination by 2030, in line with Sustainable Development Goal target 3.3 (15).

A 2021 World Health Organization (WHO) alliance report shows that globally 69 266 people received TT surgery, 67% of this was performed in Ethiopia (6).

Ethiopia has the highest burden of trachoma worldwide, accounting for 49% of the 136.2 million people at risk globally. In 2021, the WHO reported that almost 460 000 people in Ethiopia required surgery to treat TT (16). From 2015 to 2020, around 628 484 TT operations were carried out. However, more than 342 800 people with trichiasis are still at risk of blindness in the country. The prevalence of TT in 2020 was 0.85%, which indicates the need to augment TT surgery and strengthen prevention measures to reduce the number of new cases (17).

Even though TT surgery is provided free or at subsidized cost, only 18–66% of patients agreed to have the treatment (11). A study conducted in northern Ethiopia showed that nearly 1 in 2 cases did not use TT surgery services (18). A longitudinal study in Gambia showed that only 23% of major TT patients chose to have surgery.

The 2016 trachoma impact survey by the Carter Centre Ethiopia showed the prevalence of TT in Mecha District was 1.9%. From 15 July to 15 September 2017, house-to-house TT screening was carried out in all *kebeles* (municipalities, administrative divisions) and the campaign report recorded 2275 new TT cases. Only 843 (37.1%) of these had received surgical services within one year (19). Despite being offered surgery free of charge, many refused to have it.

More operations and constructive approaches are needed to achieve TT elimination in the *woreda* (district). Identifying the reasons for refusing surgery is crucial for TT elimination. Therefore, in this study we aimed to identify the determinants of refusal of corrective upper eyelid surgery among TT patients.

## Methods

### Study design

This community-based, unmatched, case-control study was conducted in Mecha *Woreda*, West Gojjam Zone, Ethiopia, on identified TT patients.

### Sample size and sampling procedure

The double population proportion formula was used to determine the sample size as 676 participants.

For this study, refusal to have surgery was defined as a TT patient who has been given the chance (been offered) to be operated on by the health workers but had refused. Cases were defined as individuals aged > 15 years who had been diagnosed with TT and who had been given the chance to be operated on by health workers for corrective upper eyelid surgery but had refused. Controls were individuals aged > 15 years who had been diagnosed with TT and who had been operated on for corrective upper eyelid surgery.

The Ethiopia Central Statistical Agency population projection data for 2017 shows the total population of Mecha District was 372 000. The *woreda* has 6 urban and 40 rural *kebeles* (20). According to the district (local) TT patient records, 843 TT patients (controls) who had been

operated on were registered in the “service beneficiary registration logbook”, and 1032 TT patients who had the chance to be operated on but refused (cases) were registered in the “TT refusal registration logbook”.

The participants were selected by systematic random sampling from the 2017 registration logbooks. First, numbers were assigned to every individual in the logbook, and then, using a random number generator, a subset of individuals (participants) was selected for interview. Individuals who were not able to communicate were excluded from the study (e.g. those having a psychiatric illness).

### Data collection and tools

A pre-tested, interviewer-administered, structured questionnaire was adapted from previous studies and used to collect data (4,11,13–15). The questionnaire was prepared in English and translated to Amharic (local language). Data were collected by 5 nurses and 2 integrated eye care workers (supervisors) who were trained for 3 days by the principal investigator on the study instruments and data collection procedures prior to data collection.

### Data management and analysis

The data were entered, cleaned and coded using EpiInfo, version 7. Data were then exported to SPSS, version 23, for further analysis. All required variable recoding and transformation was completed before the final data analysis. Descriptive statistics were computed to describe the collected data. For the categorical variables, frequency and percentages were computed and presented in a table. For the continuous variables, mean and standard deviation (SD) were calculated. Cases and controls were compared via univariate logistic regression and independent t-test. Predictor variables having  $P$ -value < 0.2 in the univariate binary logistic regression analysis were entered into the multivariate binary logistic regression model.  $P$ -value < 0.05 and 95% confidence intervals (CIs) were used as the cut-off point to identify determinants.

## Results

### Sociodemographic characteristics

This study was conducted from 5 October to 20 November 2018. A total of 338 corrective upper eyelid surgery refusals (cases) and 338 operated controls were included. Females constituted 197 (58.3%) of the cases and 195 (57.7%) of the controls. The majority of respondents [273 (80.8%)] among the cases and 274 (81.1%) among the controls resided in rural areas. Cases and controls differed significantly in age: mean for cases was 48.9 (SD 16.2) years and for controls 52.2 (SD 15.5) years ( $P = 0.007$ ). There was no significant difference in regard to sex ( $P = 0.876$ ), marital status ( $P = 0.891$ ), education status ( $P = 0.275$ ) or occupation ( $P = 0.934$ ) (Table 1).

**Table 1** Distribution of sociodemographic characteristics of participants, individuals aged > 15 years from Mecha Woreda who had been diagnosed with TT, 2018

Characteristic	Cases (n = 338) No. (%)	Controls (n = 338) No. (%)	Total No. (%)	P-value
Age (years)				
16–30	48 (14.2)	34 (10.1)	82 (12.1)	0.007
31–45	115 (34)	83 (24.6)	198 (29.3)	
46–60	79 (23.4)	115 (34)	194 (28.7)	
>60	96 (28.4)	106 (31.4)	202 (29.9)	
Sex				
Male	141 (41.7)	143 (42.3)	284 (42)	0.876
Female	197 (58.3)	195 (57.69)	392 (58)	
Marital status				
Single	16 (4.7)	22 (6.51)	38 (5.6)	0.891
Married	215 (63.6)	199 (58.9)	414 (61.2)	
Widowed	93 (27.5)	89 (26.3)	182 (26.9)	
Divorced	14 (4.1)	28 (8.3)	42 (6.2)	
Education status				
Cannot read and write	251 (74.3)	248 (73.4)	499 (73.8)	0.275
Can read and write	32 (9.5)	51 (15.1)	83 (12.3)	
Primary education	43 (12.7)	35 (10.4)	78 (11.5)	
Secondary education	9 (2.7)	3 (0.9)	12 (1.8)	
College and above	3 (0.9)	1 (0.3)	4 (0.6)	
Residence				
Urban	65 (19.2)	64 (18.9)	129 (19.1)	0.922
Rural	273 (80.8)	274 (81.1)	547 (80.9)	
Occupation				
Housewife	179 (53)	172 (50.9)	351 (51.9)	0.934
Farmer	108 (32)	113 (33.4)	221 (32.7)	
Merchant	23 (6.8)	31 (9.2)	54 (8)	
Daily labourer	25 (7.4)	20 (5.92)	45 (6.7)	
Government employee	3 (0.9)	2 (0.59)	5 (0.7)	
Religion				
Orthodox Christian	328 (97)	330 (97.6)	658 (97.3)	0.633
Muslim	10 (3)	8 (2.4)	18 (2.7)	
Family size				
≤ 4	242 (76.6)	232 (68.6)	474 (70.1)	0.401
> 4	96 (28.4)	106 (31.4)	202 (29.9)	
Monthly income				
Low	133 (39.3)	142 (42)	275 (40.7)	0.755
Middle	128 (37.9)	124 (36.7)	252 (37.3)	
High	77 (22.8)	72 (21.3)	149 (22)	

P-values from independent t-test and univariate logistic regression.

Cases had been offered corrective upper eyelid surgery but had refused.

Controls had been operated on for corrective upper eyelid surgery.

## Participants' condition

Compared with controls, more of the cases had trichiasis in only one eye (OR = 1.68, 95% CI: 1.23–2.40). Mean duration of TT was 5.1 (SD 5.4) years for controls and 3.8 (SD 3.7) years for cases (OR = 0.40, 95% CI: 0.28–0.60). Severe pain due to TT was reported by 79 (23.4%) cases

and 109 (32.2%) controls (OR = 0.66, 95% CI: 0.55–0.79). More than half the controls [187 (55.3%)] had practised epilation before surgery, whereas only 130 (38.5%) cases had done so (OR = 2.03, 95% CI: 1.49–2.75). The majority of the controls [313 (92.6%)] said they had trust in the health professionals compared with just under half [165 (48.8%)] of the cases (OR = 5.11, 95% CI: 3.19–8.18).

Cases had less knowledge about TT (197, 58.3%) than controls (256, 75.7%) (OR = 2.23, 95% CI: 1.61–3.11). Cases and controls did not differ in access to transport (OR = 0.76, 95% CI: 0.53–1.20). Only 16 (4.7%) cases and 19 (5.6%) controls could not move on their own (i.e. needed assistance). Many more controls (243, 72%) had witnessed a good outcome (success) from surgery than refusals (cases) (141, 41.7%) (OR = 0.55, 95% CI: 0.45–0.68). The majority of the case respondents (325, 96.2%) and controls (307, 90.8%) stated that they made decisions about their health and health-related conditions themselves (OR = 0.40, 95% CI: 0.20–0.77). Almost half (161, 47.6%) of the cases and three-quarters (242, 71.6%) of the controls had taken advice from other persons in addition to health workers in regard to undergoing surgery (OR = 0.81, 95% CI: 0.74–0.88).

### **Determinants of corrective upper eyelid surgery refusal**

Variables associated with eyelid surgery refusal in the univariate logistic regression, at  $P < 0.2$ , were duration of having TT, getting personal advice, observing a person who had been operated on, knowledge about surgery, knowledge about TT outcome, age, decision-making process in the family, frequency of epilation and trust in integrated eye care workers (Table 2).

Multivariate binary logistic regression analysis showed that those who were more frequent epilators were less likely to refuse surgery (aOR = 0.31, 95% CI: 0.17–0.60). Surgery refusal was 71% lower among patients who decided their health and health related conditions in discussion with family members than those who decided for themselves (aOR = 0.29, 95% CI: 0.13–0.64). Those who had lived with TT for a long time (> 5 years) were 50% less likely to refuse surgery than those who had had it for  $\leq 5$  years (aOR = 0.50, 95% CI: 0.31–0.79). Respondents who received personal advice from other sources as well as from health workers were 74% less likely to refuse surgery (aOR = 0.26, 95% CI: 0.14–0.50). Having witnessed poor outcomes of surgery led to a 3.51 times greater likelihood of refusing eyelid surgery (aOR = 3.51, 95% CI: 1.94–6.35). Respondents who had knowledge about eyelid surgery were 68% less likely to refuse (aOR = 0.32, 95% CI: 0.16–0.64). Those who were not knowledgeable about TT were 77% more likely to refuse eyelid surgery than those who were (aOR = 1.77, 95% CI: 1.18–2.65). Refusal to have surgery was 74% lower among respondents who said they had trust in the integrated eye care workers (aOR = 0.26, 95% CI: 0.15–0.45) (Table 2).

### **Discussion**

Refusal to have eyelid surgery decreased with duration of illness. This contradicts the findings of a study conducted in south Wollo, Mehalsayint District, in which the respondents who had had TT for more than 5 years were 2.56 times more likely not to attend surgery than those in whom the duration of the condition was  $\leq 5$  years (21). Our findings support those of a study conducted

in southern Tigray, Ethiopia, in which participants who had had trichiasis for > 2 years were 60.2% less likely to refuse surgery than participants who had had the condition for  $\leq 2$  years (18). In a cohort study in Tanzania on 200 TT patients, surgical coverage at baseline was 16.9%, but one year later the surgical uptake was 44.8% (an increase of 27.9%) (22). Over time, patients may be requested to attend many surgery programmes, which may increase the probability of making the decision to have the operation. This finding is supported by a study conducted in northern Ethiopia (23). This may be because the early symptoms were mild, however, over time, due to the progressive scarring effect of the bacteria on the eyelid (24), the intumed lashes that scratch the cornea increased in number (minor progresses to major TT) (25), causing severe pain. As the pain increases, patients may be forced to accept corrective eyelid surgery treatment to relieve the pain.

Practising more frequent epilation was associated with fewer refusals to have surgery. This is supported by the findings of a study in South Wollo, Mehalsayint, which showed that non-epilators had a 3.22 times greater likelihood of not having surgery than those who had had at least one instance of epilation (21). Even though epilation has an effect comparable to that of surgery for patients with minor TT (< 5 lashes) (9), if it is practised in patients with severe TT, it may become more frequent, adding another load to their day-to-day activities. Consequently, they may choose a treatment that completely cures and gives them respite. Surgery is proven in TT patients to improve the ability of individuals to perform productive activities, improve their quality of life and their vision (26,27). Therefore, frequent epilators, probably severe TT cases, may be less likely to refuse the surgery.

We found that refusal to have surgery was lower among individuals who were knowledgeable about the procedure. This is supported by a comparable study from Tanzania which showed that 26% of those accepting to have surgery suggested that better education and advice about the surgery would help improve services (28). Another qualitative study from Tanzania found that community health workers and patients gave long recovery times, fear of surgery pain and poor anecdotal experiences with surgery as reasons for refusing (29). This was also reinforced by a study conducted in Basoliben, in which the majority of non-operated respondents (81%) had no knowledge about eyelid surgery (30). Patients who had knowledge about eyelid surgery knew that surgery was conducted with lidocaine (without pain) (4), takes a short time to complete and requires only a few days to heal and to return to work. This knowledge may help TT patients to decide on accepting surgery.

In our study, there was greater refusal to have surgery among individuals who had no knowledge about TT. This is supported by a study conducted in Tanzania in which 95.7% of surgery acceptors and 87.7% of non-acceptors had knowledge of the progression of TT to blindness (8% less in the non-acceptors) (28). A study on the natural history of TT showed that it is a high risk for blinding corneal



**Table 2 Bivariate and multivariate binary logistic regression on determinants of corrective upper eyelid surgery refusals among trachomatous trichiasis patients**

Determinant	Cases (n = 338)	Controls (n = 338)	cOR (95% CI)	aOR (95% CI)
<b>Duration of TT</b>				
≤ 5 years	271	208	Reference	Reference
> 5 years	67	130	0.40 (0.28–0.56)	0.50 (0.31–0.79)*
<b>Frequency of epilation</b>				
No epilation	204	145	Reference	Reference
> once a week	27	74	0.27 (0.16–0.43)	0.31 (0.17–0.6)*
Once/week to once/month	37	58	0.46 (0.30–0.74)	0.49 (0.27–0.86)*
< once a month	66	55	0.87 (0.58–1.32)	0.96 (0.57–1.61)
<b>Knowledge about eyelid surgery</b>				
No	50	17	Reference	Reference
Yes	288	321	0.31 (0.17–0.54)	0.32 (0.16–0.64)*
<b>Age (years)</b>				
16–30	48	34	Reference	Reference
31–45	115	83	0.98 (0.58–1.65)	1.09 (0.57–2.09)
46–60	79	115	0.49 (0.29–0.82)	0.53 (0.27–1.03)
>60	96	106	0.64 (0.38–1.08)	1.03 (0.52–2.03)
<b>Knowledge about TT</b>				
Yes	197	256	Reference	Reference
No	141	181	2.23 (1.61–3.11)	1.77 (1.18–2.65)*
<b>Trust in IECWs</b>				
No	98	25	Reference	Reference
Yes	240	313	0.20 (0.12–0.31)	0.26 (0.15–0.45)*
<b>Decision-maker in family</b>				
Self	325	307	Reference	Reference
Discussion with a family member	11	31	0.40 (0.2–0.77)	0.29 (0.13–0.64)*
<b>Got personal advice</b>				
No	177	198	Reference	Reference
Family	17	19	0.49 (0.25–1.00)	0.83 (0.34–1.99)
Friends	24	54	0.26 (0.15–0.44)	0.26 (0.14–0.50)*
Health Development Army	7	28	0.14 (0.06–0.33)	0.11 (0.04–0.28)*
Government body	113	141	0.44 (0.31–0.63)	0.46 (0.3–0.70)*
<b>Observed surgery outcome</b>				
Not observed	68	54	Reference	Reference
Poor	129	41	2.50 (1.51–4.12)	3.51 (1.94–6.35)*
Good	141	243	0.46 (0.31–0.70)	0.63 (0.38–1.02)

Cases had been offered corrective upper eyelid surgery but had refused.

Controls had been operated on for corrective upper eyelid surgery.

cOR = crude odds ratio.

aOR = adjusted odds ratio.

CI = confidence interval.

IECWs = integrated eye care workers.

\*Statistically significant in multivariate analysis ( $P < 0.05$ ).

opacity (31). Fear of losing vision comes from knowledge about the potential of TT to lead to blindness, and could have been a stronger motivator among patients who had been operated on to agree to have the surgery; those who refused the surgery may have lacked this knowledge.

Refusal to have surgery was lower among those respondents who had trust in the integrated eye care workers. A study in South Wollo showed non-significant

results, but a descriptive statistic indicated that 89.6% of respondents among the non-operated and 98.8% among those who had been operated on (9.2% more in controls) had trust in TT surgeons (21). From interviews with 94 surgeons who were still in the programme in West Amhara, 15% said patients “want an expatriate surgeon (i.e. did not show trust)” as reasons for not presenting for surgery (32). Patients going to the clinic need to have a

successful outcome (looking good after surgery), but in clinical trials in the Amhara Region, the surgical failure (recurrence) rate varied from 7% to 50%; eye contour abnormalities varied from 19% to 28%; and granuloma varied from 3.2% to 5.6% among surgeons (33,34). Surgeons who have fewer unfavourable outcomes may earn the trust of patients while those who have many unfavourable outcomes may not. Fear of poor outcomes may be one reason for refusing surgery among patients who did not trust TT surgeons.

Refusals were fewer among patients whose deciders for health and health-related conditions were family members than those who decided by themselves. Decision-making was the difficult part for many patients in accepting to have surgery (13). Over time, a family member may help convince non-acceptors to have surgery, and hesitant patients may also be more willing to trust family members.

Getting advice from sources other than (or in addition to) health workers reduced the rate of refusing to have surgery. This is supported by a study conducted in Tanzania which showed that, when another person was involved, 22.3% of respondents among acceptors and 19.2% among non-acceptors (3.2% more in acceptors) agreed to have the surgery (28). This may be because individuals who had positive experience of surgery persuaded their friends to accept surgery. In addition, patients could be more willing to trust their leaders. Perhaps this was the reason most patients who had the surgery could be convinced by their kebele leaders and the Health Development Army.

Our study showed that respondents who had witnessed poor outcomes of surgery were more likely to refuse eyelid surgery. This is supported by a study in

Tanzania in which patients in a focus group discussion gave, as a reason for refusing surgery, wanting to see how others in the village fared after surgery, and when they saw the rapid recovery of their neighbours, they wanted the surgery for themselves (29). A study in West Amhara showed that, among 94 surgeons who were still in the programme, 9.5% thought that poor surgical quality was one reason for patients not to present to the clinics (32). Patients who had a positive experience of surgery were the best ambassadors to their communities in terms of persuading others to accept surgery. Successful surgery patients would be strong voices in helping to convince the non-acceptors. In contrast, if people see poor outcomes in persons who had the operation or hear horrible stories about surgery, they may refuse to undergo surgery.

This study had some limitations. We included TT cases who had been identified by health workers before the data collection. Since the information was collected from controls who had been operated on, the TT severity grading was not measured. There may also have been a certain level of recall bias.

## Conclusion

In conclusion, refusing TT surgery services was significantly related to knowledge, quality of the procedure, decision-making capacity and personal influences. Therefore, offering health education and increasing community awareness about trachoma and its treatment should be encouraged. Poor outcomes are negative provokers of surgery. A strong system should be designed to reduce unfavourable outcomes of eyelid surgery and to identify and manage poor surgical outcomes.

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## Étude cas-témoins des déterminants des refus de chirurgie réparatrice de la paupière supérieure chez les patients atteints de trichiasis trachomateux en Éthiopie

### Résumé

**Contexte :** L'infection répétée à *Chlamydia trachomatis* provoque un trichiasis trachomateux. La chirurgie est la méthode de traitement principale et privilégiée. Cependant, de nombreuses personnes refusent les interventions chirurgicales malgré la disponibilité de services gratuits dans les établissements de santé situés à proximité.

**Objectif :** Identifier les déterminants du refus d'intervention chirurgicale chez les patients atteints de trichiasis trachomateux en Éthiopie.

**Méthodes :** La présente étude cas-témoins réalisée au niveau communautaire a été menée auprès de 338 cas et 338 témoins entre le 5 octobre et le 17 décembre 2018. À l'aide d'un échantillonnage aléatoire systématique et à partir

des documents d'inscription, nous avons sélectionné des personnes qui avaient subi une intervention chirurgicale (témoins) et des personnes qui avaient refusé l'intervention (cas). Nous avons utilisé un questionnaire structuré, administré par un enquêteur et préalablement testé pour la collecte des données. Nous avons utilisé le logiciel SPSS version 23 pour analyser les données et avons recouru à la régression logistique multivariée pour identifier les déterminants.

**Résultats :** Le fait d'avoir été témoin d'un mauvais résultat chirurgical [odds ratio ajusté (ORa) : 3,51; IC à 95 % : 1,94-6,35] et le manque de connaissances sur le trichiasis trachomateux (ORa : 1,77; IC à 95 % : 1,18-2,65) sont des facteurs qui ont contribué à l'augmentation du taux de refus de la chirurgie. Le fait d'avoir confiance en son chirurgien (ORa : 0,26; IC à 95 % : 0,15-0,45), de posséder des connaissances sur la chirurgie de la paupière (ORa : 0,32; IC à 95 % : 0,16-0,64), d'être atteint de trichiasis depuis longtemps (ORa : 0,50; IC à 95 % : 0,31-0,79), de baser sa décision sur la discussion avec la famille (ORa : 0,29; IC à 95 % : 0,13-0,64), de s'épiler fréquemment (ORa : 0,31; IC à 95 % : 0,17-0,60), et de recevoir des conseils personnels (ORa : 0,11; IC à 95 % : 0,04-0,28) étaient des facteurs qui ont contribué à diminuer les taux de refus.

**Conclusion :** Le refus d'avoir recours à la chirurgie du trichiasis trachomateux était étroitement lié aux connaissances sur la chirurgie de la paupière supérieure, aux issues chirurgicales antérieures, à la capacité de prise de décision et aux influences personnelles. Des systèmes améliorés de chirurgie de la paupière supérieure devraient être mis en place en Éthiopie pour mieux prendre en charge, diminuer le nombre des issues chirurgicales défavorables et réduire le refus du recours à la chirurgie.

## دراسة الحالات والشواهد لمحددات الرفض للجراحة التصحيحية للجفن العلوي بين مرضى الشعرة التراخومية في إثيوبيا

ميليز كيتو، كيباندو ميهريتي، تاي أبوهاي

### الخلاصة

**الخلفية:** تسبب العدوى المتكررة بالمتدثرة الجُثرية مرض الشعرة التراخومية. والجراحة هي الطريقة الرئيسية والمفضلة للعلاج. ومع ذلك، يرفض كثير من الأشخاص إجراء الجراحة، رغم توفر الخدمات المجانية في المرافق الصحية القريبة.

**الأهداف:** هدفت هذه الدراسة إلى تحديد المحددات الخاصة برفض إجراء الجراحة بين مرضى الشعرة التراخومية في إثيوبيا.

**طرق البحث:** أُجريت دراسة الحالات والشواهد القائمة على المجتمع هذه على 338 من الحالات و338 من الشواهد في الفترة من 5 أكتوبر/ تشرين الأول إلى 17 ديسمبر/ كانون الأول 2018. وباستخدام أخذ العينات العشوائية النظامية، اخترنا أشخاصًا خضعوا للجراحة (الشواهد)، وآخرين رفضوا الجراحة (الحالات) من وثائق التسجيل، واستخدمنا استبيانًا منظمًا اختبر من قبل وتجريه القائمون بالمقابلة لجمع البيانات. واستخدمنا الإصدار 23 من برنامج SPSS لتحليل البيانات، واستخدمنا الانحدار اللوجستي المتعدد المتغيرات لتحديد المحددات.

**النتائج:** إن المعاناة من حصيلة جراحية سلبية [نسبة الأرجحية المعدلة: 3.51، فاصل الثقة 1.94-6.35، 95%]، وعدم الإلمام بمعلومات عن مرض الشعرة التراخومية (نسبة الأرجحية المعدلة: 1.77، فاصل الثقة 1.18-2.65، 95%) أدى إلى زيادة معدل رفض الخضوع للجراحة. وأدت الثقة في الجراح (نسبة الأرجحية المعدلة: 0.26، فاصل الثقة 0.15-0.45، 95%)، والإلمام بمعلومات عن جراحة الجفن (نسبة الأرجحية المعدلة: 0.32، فاصل الثقة 0.16-0.64، 95%)، وطول مدة الإصابة بانحراف الأهداب (نسبة الأرجحية المعدلة: 0.50، فاصل الثقة 0.31-0.79، 95%)، واتخاذ القرار من خلال المناقشة مع الأسرة (نسبة الأرجحية المعدلة: 0.29، فاصل الثقة 0.13-0.64، 95%)، والتثقف المتكرر (نسبة الأرجحية المعدلة: 0.31، فاصل الثقة 0.17-0.60، 95%)، والحصول على المشورة الشخصية (نسبة الأرجحية المعدلة: 0.11، فاصل الثقة 0.04-0.28، 95%) إلى انخفاض معدلات الرفض.

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