Patient preference for the management of trigger digit

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Steroid injection and surgery are both accepted treatment options for trigger digit. The objective of this study was to determine which modality patients would prefer when given a choice of treatments, the strength of their preference and factors that may influence their preference. A probability trade-off technique was used in 151 subjects. On average, subjects selected injection over surgery and would do so with a probability of success by injection as low as 57%. If the probability of cure by injection was less than 57%, surgery would be the preferred method of treatment, on average. A bimodal distribution of patient preference showed that some patients may strongly prefer either surgery or injection, with many patients preferring surgery even with a high expected cure rate of the first injection. Age, gender and previous experience with injections or surgery did not correlate with preference. Patients with trigger digits should be presented with unbiased information about treatment and be allowed to take part in the selection of the type of treatment they receive.

Key Words: Hand surgery, Patient education, Patient preference, Probability, Surgery, Trigger digit

Préférence des patients pour le traitement du doigt-gachette

RÉSUMÉ : L’objectif de cette étude a été de déterminer la modalité thérapeutique préférée des patients lorsque le choix leur est donné, leur degré de préférence et les facteurs aptes à l’influencer. Une technique de sélection en fonction des probabilities a été utilisée chez 151 sujets. En moyenne les sujets ont choisi l’injection plutôt que la chirurgie, et ce, avec une probabilité de succès aussi faible que 57 %. Si la probabilité de guérison avec l’injection était présentée à moins de 57 %, les patients optaient en moyenne pour la chirurgie. Une distribution bimodale quant à la préférence des patients a révélé que certains patients préféraient de beaucoup soit l’une des modalités, soit l’autre, plusieurs d’entre eux choisissant la chirurgie malgré le taux élevé de guérison associé à une première injection. Aucune corrélation entre âge, sexe, et expérience antérieure d’injection ou de chirurgie n’a été établie avec les préférences. Les patients atteints de doigt-gachette doivent recevoir une information neutre sur le traitement et participer au choix du traitement qu’ils recevront.

Trigger digit is a common disorder that is usually treated with one of two methods: steroid injection or surgical release. Injection of a steroid into the region of the first annular pulley is a successful method of treatment, with an expected resolution of triggering in up to 80% of patients after a single injection (1,2). It is also convenient and has a low morbidity rate. Surgical release of the pulley, while having almost uniform success, has more morbidity and is less convenient for the patient. The initial treatment provided is the result of a complex combination of factors, including the preference of the treating surgeon.

The purpose of this study was: to determine which treatment for trigger digit surrogate patients would prefer when given standard patient information before making a treatment choice; to measure the strength of their preference; and to identify patient characteristics that would influence the preference.

METHODS AND PATIENT POPULATION

The probability trade-off technique used in this study has been described by Llewellyn-Thomas et al (3).

One hundred and fifty-one surrogate patients were randomly selected from the waiting room of the family medical centre at a large urban hospital. All subjects were of a middle class, multicultural population (mean age 50 years, 58% female). None had trigger digit.

All subjects were given standard information cards. These cards were developed by discussion with several hand surgeons and were made to portray the usual clinical information the surgeon would relate to the patient before treatment of this disorder was begun. The information cards also included the anatomy and pathophysiology of trigger digit and a description of both methods of treatment, with the probable success rate and complication rate. The expected success rate of surgical release was stated as approximately 99%. The stated probable success rate for steroid injection was initially chosen by random selection for each subject and then changed as the trade-off procedure was started.

After reviewing the cards and comparing the probabilities for success, the patients were asked to imagine that they had
DISCUSSION

If subjects strongly favoured injection, or conversely strongly disfavoured surgery, they chose injection over surgery even if injection had a low probability of success. If subjects valued the greater efficacy of surgery, they may have chosen surgery even with relatively high expected success following injection.

The probability trade-off technique used in this study is a recognized technique to study preferences between two choices (4). It has been used to study treatment preference in cancer patients and their decisions to enter research trials (3). In our study, no patient actually had trigger digit, which may have influenced the decision-making process. The choice of treatment options may be different when medical situations are hypothetical or real, as has been the case with life-threatening illness (5). The magnitude of the morbidity of trigger digit surgery and injection are extremely low by comparison, however, so the trade-off technique, with surrogate patients, should suffer much less under these circumstances. Furthermore, the potential disadvantage of using surrogate patients must be weighted against the advantages of the trade-off approach. This study used patients who did not have trigger digit, and hence would have no expectation about treatment of the disorder. This allowed the efficient study of a large number of patients, using predetermined, unbiased information, delivered in a standardized fashion.

The switch point in the present study represented the lowest probability of treatment success by injection the patient would need to choose injection over surgery. The wide distribution of switch points is interesting and represents the wide variation of preference in the population. The mean switch point of 57% is well below the expected 60% to 80% cure rate by the first injection that has appeared in the literature (6-8), supporting the use of injection as the first choice of therapy. However, the bimodal distribution has a large number of patients who would choose surgery even with an expected cure rate following the first injection at or higher than the clinically expected rate of about 80%.

This shows that patients may strongly prefer surgery or injection for the treatment of trigger digit and should be given an unbiased presentation of both treatment options and the opportunity to take part in the decision for treatment.

REFERENCES