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Profile of trigger finger in Aricanti Hospital, Gianyar

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Abstract
Trigger finger is a condition that is often found in patients who visit orthopaedic clinics. It can decrease the productivity of affected person. However, data regarding trigger finger in Indonesia, especially in Gianyar, is still difficult to find. Thus, this study aims to determine the characteristics of trigger finger at the Aricanti Hospital in Gianyar. This study is a retrospective descriptive study using medical record data with total sampling technique. The data obtained according to the inclusion and exclusion criteria were 46 patients analysed with SPSS version 26. This study shows the most patients are female (69.6%), most aged in early elderly (46-55 years) as much as 47.8 %. The most common affected in right hand (60.9%), most location of trigger finger is on 1st finger (45.6%), with no comorbid diseases (67.4%), mostly treated with non-operative management (95.7%). In terms of operative management, was managed by open release flexor tendon digitorum (100%), while non-operative treatment was managed injection of triamcinolone acetonide (100%).

Keywords: Profile, Trigger finger, Aricanti Hospital

Introduction

Trigger finger is also known as stenosis tenosynovitis is a common finger aliment, thought to be caused by inflammation and subsequent narrowing of the A1 pulley. The primary pathology is thickening of the A1 pulley, with resultant entrapment of the flexor tendon. Stenosing tenosynovitis or trigger finger is characterised by pain, swelling, movement limitation, and a triggering sensation of the finger. The diagnosis is usually fairly straightforward, as most patients complain of clicking or locking of the finger, but other pathological processes such as fracture, tumour, or other traumatic soft tissue injuries must be excluded. Treatment modalities, including splinting, corticosteroid injection, or surgical release, are very effective and are tailored to the severity and duration of symptoms. Conservative treatment (steroid injection, anti-inflammatory drug use, and splinting) has a success rate of 50% to 92%.
When conservative treatment fails, surgical release of the A1 pulley is indicated and has a success rate of up to 100%. Complications of surgical release include infection, digital nerve injury, scar tenderness, and joint contractures. Percutaneous release of the A1 pulley results in a low complication rate and high patient satisfaction.

Epidemiology

Stenosing tenosynovitis (trigger finger) is most common in women, TF is one of the most common diseases seen in hand surgery clinics and is the fourth leading cause of referral to these clinics. It is characterised by pain, swelling, and clicking of a digit during flexion or extension. Usually, the extension is more problematic. The incidence of Trigger finger (TF) is 28:100 000 per year or a lifetime risk of 2.6 % in the general population, but it increases to 10% in the diabetic population. The mean age of onset for TF is 58 years., and it is diagnosed in women two to six times more frequently than in men, commonly associated with diabetes and inflammatory arthropathy. May otherwise result from repetitive grasp activities (idiopathic form). The literature describes the symptoms of TF, but there is a lack of reference to the broader consequences of this pathology. Furthermore, treatment efficacy studies measure change in symptoms as the primary outcome measure and does not include measures of functional status and QOL (Quality of life).

Diagnosis

The classic presentation of popping and locking of a trigger finger is typically all that is needed for diagnosis; however, with acute onset of symptoms patients may present with pain and swelling over the involved flexor sheath with avoidance of finger motion. For trigger thumb, there is a palpable nodule usually proximal to the A1 pulley called “Notta’s node” that moves with motion of the flexor tendon. Occasionally, this nodule can get stuck distal to the A1 pulley and block flexion after a period of triggering; thus, careful examination of the tendon and active and passive motion of the thumb is required. Routine imaging of the thumb is not required. For trigger finger, there often is not a palpable nodule in the tendon, but a “clicking or popping” can be felt near the PIP joint as the patient moves the finger. If multiple digits are involved, it is imperative to ensure that there is no underlying metabolic disorder or syndrome associated with this finding

Methods

This study was a descriptive retrospective study conducted at Aricanti Hospital, Gianyar, during the period January 2022 to October 2023 The population that was the focus of this study was patients who diagnosed with trigger finger. The inclusion criteria for samples in this study included patients who had been diagnosed with trigger finger in outpatient orthopaedic clinic and had complete medical records during the period January 2022 to October 2023. The number of samples taken was 46 people. The data collected in this study included patient demographic information, phalange location, management. Thes location

was divided into 5 categories, 1st finger, 2nd finger, 3rd finger, 4th finger, 5th finger. Fracture management is divided into operative and non-operative methods, The collected data were then analysed using univariate statistical methods with the help of SPSS version 26 software.

Result

The results of the study of the distribution of trigger finger patients as many as 46 people in Table 1, show that the majority of patients belong to early elderly (46-55 years) as much as 47.8 %. the majority of patients with female gender (69.6%), obtained the most common affected in right hand (60.9%), location of trigger finger is on 1st finger (45.6%), with no comorbid diseases (67.4%), mostly treated with nonoperative management (95.7%). In terms of operative management, was managed by open release flexor tendon digitorum (100%), while non-operative treatment was managed injection of triamcinolone acetonide (100%).

Table 1: Distribution of trigger finger

Variable	Frequency	Percentage
Age	**n**	**%**
0-25	0	0
26-35	2	4.3
36-45	13	28.3
46-55	22	47.8
56-65	9	19.6
≥66	0	0
Sex		
Man	14	69.6
Woman	3 2	30.4
Laterality		
Right hand	28	39.1
Left hand	18	60.9
Location		
1st finger (thumb)	21	45.6
2nd finger (index)	3	6.5
3rd finger (middle)	7	15.2
4th finger (ring)	15	32.6
5th finger (little)	0	0
Comorbid Disease		
Diabetes Mellitus	9	19.6
Hypertension	6	13
No-comorbid disease	31	67.4
Treatment		
Operative	2	4.3
Non-Operative	44	95.7
Operative	2	
Release flexor tendon digitorum		100
Non-Operative	44	100
Triamcinolone acetonide injection		
Total	46	100

Discussion

Compared to the study of Junot and Anderson in 2019, our study obtained In our study, it was show that the majority comparable result, and different affected of patients belong to early elderly. the finger location. They found Patients' age majority of patients with female gender, ranged from 50 to 84 years, with a mean age obtained the most affected in right hand, of 63 years. The ring finger was the most common location of trigger finger is affected (29 patients), followed by the on thumb. middle finger (25), thumb (18), index finger.

2), and little finger (1). Considering laterality, the right hand was affected in 60% of the cases, the left hand in 35%, and bilateral in 5%. Predominance by the dominant hand was observed in 70% of the patients. Women corresponded to 51 (68%) of the cases, whereas men corresponded to 24 (32%), representing a ratio of 2:1 between women and men. They found the most patient has metabolic syndrome disease in term of comorbid.

According to Miguel *et al* study for risk factors of trigger finger they found that mean age of the cases was 52 years with a median and mode of 53 years. The right hand was the most common with the middle, thumb, ring, index and little fingers, respectively. A significant statistical relationship was found: females; diabetes; obesity. compared to our study we only found 15 patient with diabetes mellitus ang hypertension comorbid and mostly do not have any comorbid diseases.

In our study most of patient treated with non-operative management with injection of triamcinolone acetonide. According to Sato *et al*, Injection of corticosteroids for treatment of trigger finger was described as early as 1953. It should be attempted before surgical intervention as it is very efficacious (up to 93%), especially in non-diabetic patients with recent onset of symptoms and one affected digit with a palpable nodule.

Conclusion

Based on the study conducted, trigger finger is a prevalent condition in our community and is more prevalent among women in the early elderly aged. Appears in right hand and mostly in the thumb, managed by non-operatic treatment.

There are limitations to this study that can only describe some of the characteristics of trigger finger patients in the Outpatient Orthopaedic clinic of Aricanti Gianyar Hospital, so it is necessary to conduct further study by adding characteristics such as patient occupation with larger populations to be more representative.

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