

DEFINITION

1. Dupuytren's Contracture is a localised thickening of the palmar fascia which shows a strong tendency to contract and draw the affected fingers into fixed flexion. Rarely, the plantar fascia may be affected. The condition was first described by Dupuytren in 1831.

CLINICAL MANIFESTATIONS

2. The first sign is usually the appearance of a small hard nodule in the palmar fascia over-lying one of the metacarpal heads, commonly at the base of the little finger. The nodule is eventually replaced by a cord-like band of contracted fascia. The ring, middle and index fingers may also become affected and the disease is commonly bilateral. The over-lying skin becomes puckered and adherent to the contracted fascia. The fingers are drawn into rigid flexion at the metacarpo-phalangeal and inter-phalangeal joints.

PREVALENCE

3. Between 4.0% and 5.6% of the population have some evidence of Dupuytren's Contracture. It is twice as common in males as in females. The risk increases with age, 17.1% of males over the age of 65 years being affected and 30.8% of males over the age of 85 years.

AETIOLOGY

4. The tendency to develop Dupuytren's Contracture is held to be genetic. Examination of 832 first degree relatives of 48 patients with the condition showed a prevalence of 68%. The inheritance pattern suggests an autosomal dominant mechanism.
5. In the past, the condition was believed to be due to repeated minor trauma to the palm or excessive use of the hands. However, the disease is not confined to manual workers and is frequently seen in those who have never experienced trauma to the hands.
6. The role of occupational factors in the development of Dupuytren's Contracture is unclear. Studies in 1951, 1962 and 1971 did not show an association with occupation. However, a study in 1978 of 15,950 patients with Dupuytren's Contracture showed the following prevalences.

Group	Rate per 100	
	Male	Female
Heavy manual	14.7	16.7
Medium heavy manual	11.4	3.1
Light manual	9.5	2.8
Non-manual	5.3	0.9

7. A study of 209 cases of Colles' Fracture (a fracture of the lower end of the radius and ulna) showed Dupuytren's Contracture to have developed in 9 cases after 3 months and in 23 cases after 6 months. These figures represent a considerable increase above the general prevalence.
8. There is a strong association between Epilepsy and Dupuytren's Contracture, the association being thought to be due to anticonvulsant drugs.
9. There is a proven link between Diabetes Mellitus and Dupuytren's Contracture.
10. A high prevalence of Dupuytren's Contracture has been found in alcoholic patients. There was no significant difference between alcoholic patients with chronic liver disease and those without.

CONCLUSION

11. Dupuytren's Contracture is a genetically determined disease which may be precipitated by certain disease processes. It may be accelerated by manual work but may arise without obvious involvement of external factors.

REFERENCES

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