Ganglion and its homoeopathic approach

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Abstract
Ganglion are benign cystic swelling containing gelatinous fluid which may occur in any joint but most frequently occurs in the wrist. They are common around joints due to abundance of fibrous tissue. This article reviews what is known about ganglion cyst development, natural history, histopathology, diagnosis and current treatment options along with the homoeopathic approach of this prevalent ailment. Although the exact cause is unknown, there are numerous theories explaining its aetiology and most accepted one is that it results from continuous micro-injury to the ligamentous and capsular supporting systems. Current treatment options include observation, nonsurgical aspiration/injection, and surgical excision. However, Cyst aspiration/injection has a higher incidence of recurrence, whereas an increased frequency of complications follows surgery. Homoeopathy could therefore beneficial in such cases where available treatments are all insufficient. Homoeopathy is an individualized therapeutic system which can provide a complete annihilation of such diseases like ganglion in shortest and most harmless way.

Keywords: Ganglion, cyst, homoeopathy, ganglion cyst

Introduction
It is a tense, cystic swelling contains gelatinous fluid and brought on by myxomatous degeneration of the synovial sheath lining the joint or tendon sheath \[1\]. Though its exact origin is uncertain, ganglion cysts are thought to develop as a result of repeated microtrauma that causes connective tissue to degenerate into mucinous matter. Hyaluronic acid is thought to be produced by fibroblasts in response to repeated injury to the ligamentous and capsular supporting systems, which then builds up to form the mucin “jelly-like” substance that is commonly present in ganglion cysts \[2\].

Common sites
They are common around joints because of abundant fibrous tissue. Ganglion cysts may occur in any joint \[1, 2, 3\].
1. The most common (60-70%) site is the dorsal aspect of the wrist, originating from the scapholunate ligament or scapholunate articulation.
2. Around 13-20% of ganglion cysts are found on the volar aspect of the wrist, originating from the radiocarpal joint or scaphotrapezial joint.
3. The other 10% of ganglion cysts can develop in a variety of locations across the body, including the distal interphalangeal joint, the ankle joint, the foot, etc.

Epidemiology
Ganglion cysts are soft tissue growths that typically found in the hand and wrist and may arise in the paediatric as well as the aged population. Despite the fact that they can develop at any age, they are most frequently detected in females between the ages of 20 to 50 years. A ganglion cyst can form in a woman three times more often than a man \[1, 2, 4\]. Gymnasts regularly experience these cysts as well, probably as a result of repeated injury and stress on the wrist joint \[1\].

Histopathology
Due to the intrinsic benignness of ganglion cysts, routine biopsies are not necessary. Histopathologically, the typical appearance is a mucin-filled, synovial cell walled sac that lacks a true epithelial lining. Single or multiloculated ganglion cysts are both possible \[2\].
According to analysis using electron microscopy, the ganglion’s wall is made up of collagen fibres stacked in multidirectional layers, with rare cells in the collagen sheets that resemble fibroblasts. Due to a high concentration of hyaluronic acid and mucopolysaccharides, the thick mucinous substance found in the majority of ganglion cysts is extremely viscous [2, 3].

Clinical Approach
Patients frequently have a history of an asymptomatic mass that has been there for several months to years when they first appear. But patients may present with complain of pain, tenderness and weakness that gets worse with wrist mobility [2, 4]. Aching or pain in the wrist that may also radiate up the patient’s arm. The cause of pain is uncertain, however in the instance of the dorsal ganglia, it is thought to be due to compression of the terminal branches of the posterior interosseous nerve. Volar ganglia can also produce paresthesias by compressing the ulnar or median nerves or their branches [2, 3]. Numerous individuals claim that the mass may change in size, growing after times of high activity and receding during periods of inactivity [4].

Findings in clinical examination [1, 2, 3];
1. Wrist ganglion are a round to oval swelling usually 1–3 cm in size, with smooth surface and round borders.
2. The swelling is felt like a cystic, firm rubber ball and fluctuant. It is mobile in transverse direction.
3. They are often adhering to deep tissue rather than the skin above it.
4. The cyst readily transilluminates and there is no accompanying warmth or erythema.
5. When the tendons are put into contraction, the swelling mobility gets limited.
6. On occasion, it appears to be getting smaller as a result of slippage between bones.

Diagnostic approach
The clinical presentation is typically sufficient for diagnosis, except in the case of an “occult wrist ganglion,” where an MRI is required to make a diagnosis. Radiographs may be ordered to rule out any associated intraosseous manifestation, although they are typically unremarkable. Ultrasound can be useful to distinguish between cyst and vascular malformation [2, 3].

Differential diagnosis [1, 2];
1. Implantation dermoid cyst
2. Exostosis of the bone
3. Chondroblastoma
4. Giant cell tumour
5. Nonossiflying fibroma
6. Osteoblastoma

Management
Many individuals seek medical attention when they experience pain, soreness, weakness, dissatisfaction with cosmetic appearance and potential for malignant growth. Asymptomatic patients can be observed and reassured that ganglion cysts are benign and may spontaneously resolve [2, 4].

Conservative treatment [1, 3, 5];
1. Aspiration- currently aspiration is the mainstay of nonsurgical treatment. However, its recurrence rates are high and the majority of studies revealed that more than half of ganglions treated with aspiration alone will recur.
2. Steroid - Ganglion can be treated with steroid injection. However, it had potential complications and it might have no benefit.
3. Sclerotherapy- Sclerosant injection has been suggested as a treatment for ganglion, although it may move from the ganglion to the joint or tendon and harm those structures. Hence, the use of sclerotherapy had declined.
4. Electrocautery- Ganglion sclerosis can be induced by electrocautery, and the findings were favourable. However, this technique had not been widely adopted.
5. Hyaluronidase- It is employed when the ganglion material is too vigorous to draw, making aspiration incomplete. However, the success rate has been inconsistent, and hyaluronidase could trigger an allergic reaction.
6. Threat technique- Here, the contents of ganglion were expelled by massage at interval. However, complete resolution might not be attained, and ganglion may recur.

Surgical treatment
Surgical excision remains the gold standard for treatment of ganglion cysts. Surgery may not produce favourable outcomes and may exacerbate pain with loss of grip strength. Complications for surgical excision included wound infection, neuroma formation, hypertrophic scar, median nerve, and radial artery damage [3, 5].

Homoeopathic approach
Homoeopathy is an individualized therapeutic system i.e., a system with a tailor made approach to every case, to each its own. From among the rich source of Materia Medica any drug could prove its potential to be the most specific drug required for a particular individual abiding by the principles of Homoeopathy, physicians are guided rightfully to the therapeutics of any particular case. Likewise stated below are few of the therapeutic points that could be kept in mind while selecting an individualized remedy. Furthermore, if any confusion arises in the same there is always the art of repertorization ready to come to rescue.

Reportorial view
BCCCR Repertory [6]
LOWER EXTREMITIES- Ganglion, foot, dorsum of: - Plb.

Kent Repertory [7]
EXTREMITIES-GANGLION, Hand, palm: Ruta.
EXTREMITIES-GANGLION, Instep, on the: Ferr-m.
EXTREMITIES-GANGLION, Sole of right foot: Bufo-s.
Phatak Repertory [8].
GANGGLIA (bursae): Am-c; Ap; Arn; Benz-ac; Carb-v; Nat-m; Pho; Rut; Sil; Stric; Sul.

Synoptic Key [9].

Boericke Repertory [10].
LOCOMOTOR SYSTEME, WRISTS- Ganglion, on back -- Benz. ac., Calc. fl., Phos., Rhus t., Ruta, Sil., Thuja.

Homoeopathic therapeutics
Homoeopathic Materia Medica contains a several number of medicines that are strongly suggested in ganglion. The following mentioned medicines could be quite beneficial when administered based on their symptom similarity.

Ammonium carbonicum: Ganglion [11, 14]. Fingers and arms swell when hanging down [14].

Benzoic Acidum: Ganglion; swelling of the wrist with the most characteristic color and odour of urine and gouty or rheumatic diathesis [12].

Bovista: ganglion; affections of wrist; tremor of hands with palpitation of the heart and oppressive anxiety [13].

Calcarea fluorata: Ganglia or encysted tumors at the back of hands. Swellings and endurated enlargements having their seat in the tissue and ligaments, tendons of joints [14].

Pediculus capitis: Ganglion of foot (also ferrum metallicum) [13].

Phosphoricum Acidicum: Ganglion on back of hand; trembling of hands (when writing); lancinations (stitching) in fingers and joints of fingers [13].

Plumbum Metallicum: Ganglion on the back of hands. Weakness and painful paralysis of arms and hands [13].

Rhus Venenata: Dark colored Ganglion on wrist with swollen right hand but no redness [13].

Ruta Graveolens: Ganglion of the wrist [11]; A prolonged use of Ruta 3x has cured ganglion in front of left wrist [13].

Silicea Terra: Ganglion on wrist [13].
Sulphur: Ganglion [12]; “I have frequently cured ganglion of the wrist with sulphur cm and lower, given on general indications” [13].

Thuja Occidentalis: Trembling of hands and arms when writing; ganglion of wrist (cured by local use - R.T. Cooper) [13].

Conflict of Interest
Not available

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References

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