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Short Communication

Smart Phone and Musculoskeletal Menace

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Now a days, smart phones are used not only for gaming, SMS/text messaging or cameras and communication or as location devices etc but also becoming key components of life due to its ability to promote educational, recreational and professional related activities through internet access or social media apps etc. Therefore, its importance can be beyond our thinkable imagination in today's era. Data shows that almost 50% of smart phone users cannot "live without" their phone. It is appropriate to say that it is becoming just another type of addition gradually and quickly. It is contributing to a whole spectrum of musculoskeletal disorders (MSD) but also leading to adverse psychological health issues like anxiety, stress, depression, headache and sleep disorders. This smart phone effect on physical and mental health can lead to serious consequences on academic and professional performance.

Use of smart phone requires frequent neck flexion posture altering the normal cervical lordotic curve as an attempt is made to constantly look down on the screen leading to the increased stresses on cervical and neck muscles. This issue becomes more concerning in children where head size is larger in relation to the body size in comparison to adults. There is associated sustained gripping or holding of the device with continuous repetitive movements of the thumb and fingers, which becomes the cause for various disorders involving upper limb (i.e. Shoulders, elbows, arms, wrists, hands, thumbs and fingers).

The most common disorder in this category is 'text neck' or 'turtle neck' posture which is becoming a matter of serious health concern as it is affecting millions around the world. It presents with myofascial pain syndrome like clinical picture with associated chronic neck and back pain, soreness, headache, protraction of head and neck in relation to shoulder girdle and trunk (turtle neck) etc. The muscle typically involved in overuse repetitive micro trauma here are cervical spine musculature, trapezius and sternocleidomastoid muscles. It may progress to early cervical spondylosis, disc degeneration and herniation or even neural damage.

As we know that the shoulder goes in constant flexion, abduction, wrist goes into constant flexion and ulnar/radial deviation, elbow in flexion and pronation while the thumb in repetitive flexion and abduction-adduction and similarly fingers too especially during typing activity.

This continous posturing with continous muscle contractions leads to chronic shoulder pain, cubital tunnel syndrome with entrapment type of ulnar neuropathy (cell phone elbow), Dequervain's tenosynovitis (tendonitis of extensor pollicis longus at wrist), Carpal tunnel syndrome with median neuropathy (wrist), SMS thumb or blackberry thumb and iPod finger with tenosynovitis due to chronic long finger flexor tendon injury.

Miscellaneous disorders amongst them are blistering, paraesthesias, bursitis, swelling and soreness of fingers and thumb.

It is therefore very paramount to take note of abnormal constant posturing of neck and upper limb girdle joints where it is recommended to give a break of 20 minutes after continuous use, mantainence of proper posture during usage of these electronic gadgets, in consultation with physiotherapist, occupational therapist or orthopaedic surgeon, taking frequent breaks with changing positions of various upper limb joints, promoting use of voice to text software and avoiding sustained use of thumb for typing and encouraging working with other fingers too.

In today's era, it is very important for the orthopaedic practitioners to be aware of these musculoskeletal problems associated with the use of Hand held devices (HHD) i.e. smart phone, so that appropriate measures can be taken to check them.