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Question1:

Explain kaltenborn concave convex rule at the proximal radio ulnar joint?

Answer: Kaltenborn Concept:

The Kaltenborn concave convex rule is a familiar concept in manual therapy joint techniques and arthrokinematics. The rule is based on the relationship between normal bone rotations and the gliding component of the corresponding joint movements.

The concave convex rule is considered an important theory during treatment decision making (Kirby et al., 2007) According to this rule the therapist moves a bone with a convex joint surface opposite to the direction of restricted movement of the distal aspect of the bone.

- For example:

- The head of humerus inferiorly for restricted shoulder abduction.

However, a concave joint surface is mobilized in the same direction as the direction of the restricted bone movement.

- For example:

- The tibia condyles anteriorly for restricted knee extension.(Kaltenborn, 2002).

- Concave convex rule:

Instead of moving the ball, move and roll your palm around the stationary ball. As your palm rolls around the ball, it also glides in the same direction. So when a concave joint surface is moving on a convex joint surface, roll and glide occur in the same direction.

- Radio_ular joints:

Applying the rules of concavity or convexity to the humero_ular joint. In an open chain concave ulnar surface rolls and glides in the same direction on convex humeral surface in a closed chain, the convex humeral surface rolls and glides in opposite directions in the concave ulnar surface.

- Proximal radio_ ular joint:

Standing, sitting or lying supine.

Anterior or lateral to the patient.

May I touch your forearm or point to the demonstrated area) Now please turn your hand inward and outside (or demonstrate).

- Radio_ular joints:

There are three radioulnar joints. The proximal joint involves the convex head of the radius rotating with the stable concave ulna. The middle joint involves the radial and ulnar shafts stabilized with an interosseous membrane. It is not palpable from the body surface. The distal joint involves the concave distal radius articulating with the convex distal ulna.

With the patient gently relaxed wrap the fingers and thumb around the head of the radius.

Palpate the rotating radial head as it articulates with the stationary proximal ulna as the patient is guided to pronate and supinate the forearm.

Question 2:

Answer:

- Anterior_Posterior Glide:

Anterior_posterior glide(APG) and inferior glide(IG) are frequently employed by orthopedic physical therapists to mobilize the shoulder joint to reduce pain, improve mobility, and regain normal joint function.

- Inferior glide (IG):

Patient is positioned supine with hip and knee flexed to 90 degrees. The opposite leg is supported on the operators shoulder in flexion.(This technique can be performed with varying degrees of flexion and/or rotation depending on intended effect.