Dynamic Chiropractic

PAIN RELIEF / PREVENTION

Review of the Conservative Management of Posttraumatic Hematoma

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Extravascular hemorrhage contained within the interstitial tissues is often referred to as a hematoma. Such a lesion commonly results following trauma. In the event that a reduced blood pressure is found distal to the point of trauma and involves a major vessel, to be clinically confident of the absence of possible embolization of a thrombus, a consult with a vascular surgeon becomes mandatory.

If palpation rules out the probability of incorporation of the hematoma into the substance of a vessel wall, and the diameter of the hematomatous mass is less than 2.5 cm with location in the superficial subcutaneous tissues, management should be relatively simple.

During the process of formation of the hematoma, fibrin forms within the fluid mass. In the absence of disruption, this fibrous network commonly leads to adhesion formation and may progress to myositis ossificans.

With the application of pulsed ultrasonic energy of sufficient intensity to reach the fibrous hematoma, this wavelength is such as to gradually disrupt this fibrous mass. With disruption of the fibrous mass, adhesion formation may be circumvented, preventing the changes in the interstices otherwise leading to myositis ossificans.

The patient may be instructed to apply cryotherapy at home in the form of ice packs wrapped in a moist towel to enhance the effects of convection. Ice packs may be applied for 20 minutes of contact at the site of trauma followed by 5-10 minutes of withdrawal for several days.

The coupling agent used to apply pulsed US energy may be oil, or an agent of this character, but it must not possess vasodilator properties. Continuous US energy must not be used to avoid enhancing the interstitial and intramuscular hemorrhage due to the exothermic effect of this agent. Also, it has been this author's experience that should the surgeon decide to perform needle aspiration of the continued hemorrhage, the void will simply refill following evacuation.

Traumatic edema is a characteristic common to this form of trauma. When located in the upper or lower extremities, elevation of the traumatized part above heart level usually enhances reduction of edema by contributing to the effects of gravity on physiology.

Experience by the author suggests the application of pulsed US energy every other day for 6 to 8 applications and then two times weekly for two weeks, with at least a two day treatment holiday between applications during the twice weekly dose. Sonic imaging may differentiate the character of the hematoma relative to its vascular proximity.

References

1. Anderson WAD. Pathology, 3rd edition, Mosby.
2. Griffin, Karselis. Physical Agents for Physical Therapists, Thomas Publishers, 1982.
3. Davis. Therapeutic Modalities for the Clinical Health Sciences, 2nd edition, 1989. Library of Congress card #TXu-389-661.

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