Efficacy of Wet Cupping on Reactive Oxygen Species and Antioxidant Capacity: A Self-controlled Interventional Study

STUDY PROTOCOL

Among the healthy individuals who applied for Wet Cupping Therapy (WCT) to Traditional and Complementary Therapies (TCT) center in Karabuk Medical Faculty Education and Research Hospital, 24 individuals were enrolled in the study. Individuals who had a chronic disease, use medication everyday and have conditions contraindicated for WCT (such as (Hgb<9.5;INR>1.2) were excluded.

Informed consent was obtained from all the individuals participated in the study. Ethical approval was granted by Karabuk University Clinical Trials Ethics Committee with number 1/5 and date 09.01.2018.

All patients underwent three sessions of Wet Cupping Treatments (WCT), at one month intervals consecutively (0 days, 30 days, and 60 days). WCT was performed using disposable vacuum cups on 5 acupuncture point locations: DU 14 (Dazhui) point on the posterior median line, in the depression below the processus spinosus of the 7th cervical vertebra; UB 42 (Pohu) points bilaterally on the back, 3.0 cun lateral to the lower border of the spinous process of the 3rd thoracic vertebra interscapular region; and UB 46 (Geguan) points bilaterally on the back, 3.0 cun lateral to the lower border of the spinous process of the 7th thoracic vertebra (Figure 1). Each WCT procedure took about 20 min and was conducted in 5 phases:

- **Sterilization**: The selected regions is disinfected with povidone iodine before the procedure.
- **Primary sucking**: The cup is placed on the selected sites and the air is withdrawn from inside the cup by manual suction. The cups are located on the skin and left for a period of 3 to 5 minutes.
- **Scarification**: Superficial incisions, 2–3 mm in depth and 3–5 mm in length, are made on the skin using a number 15 sterile surgical blade.
**Blood-letting by secondary sucking:** The cups are located on the skin again, in the same manner as described above, and left until filled with blood from the capillary.

**Disconnection and dressing:** The cups filled with blood are removed and destroyed as medical waste. A dressing with sterile sponge is applied.

The individuals venous blood samples obtained initially and after the completion of the three consecutive application will be evaluated in terms of Reactive Oxygen species and Antioxidant capacity. In addition samples from the cupping blood during the first and the third WCT application will also be obtained and evaluated in the same manner. Total antioxidant status (TAS), total oxidant status (TOS), super oxide dismutase (SOD), catalase (CAT) levels will be measured biochemically in all samples.