According reaction incorporates few randomized controlled examinations

According to the dataanalysis in the current study, the results of the first group (sternal pump andrecoil techniques) revealed that there was a non-significant improvement withingroups in the values of absolute CD4 and WBCs count , P value <0.

05. Similarly, results showed an agreement with Firsova11 studied theefficacy of recoil technique on the cardiovascular and the respiratory systems. The result was significant on systolic blood pressure, the study concluded inthere was a change in blood pressure after application of recoil technique.

Thereare no studies related to blood counting or lymphocytes according to sternaltechniques however they have a vegetative effect on the circulatory system. Regarding the effects ofthe second group (TLPT&SPT) on immune system: According tothe data analysis in the current study, the results of the second group(TLPT&SPT) revealed that there was a significant improvement within groupsin the values of absolute CD4 and WBCs count, P value <0. 05. Breithauptet al12 examined theimpact of LPT on the immune reaction incorporates few randomized controlledexaminations researching the impact of LPT on immune reaction to vaccination, thestudy concluded that application of LPT with flu immunization enhanced general immunity. Mesina13 studied application of LPT on seven normal subjectsand the study showed an increase in the basophils, WBCs counts. Hodge et al14 TLPT has beenshown increase in blood leukocyte numbers of macrophages, neutrophils and CD4? T-cells in both thoracic and mesenteric duct lymph. Leukocytes releasedfrom mesenteric lymph nodes by the effect of TLPT into thoracic duct lymph and stimulatesflux of leukocytes in mesenteric duct

lymph and thoracic duct lymph. Measeland Kafity15 studied the pump techniques and showed an increaseof WBCs count, B cells and T cells, this explain the important role of spleen in theimmune system.

Castlio and Ferris-Swift16 studied the efficacyof different compressions to spleen for different times ranging from 1. 5 to 5minutes for 21 compressions /min and the study showed increase in theleukocytes count in almost all cases. McMillan et al17 studiedTLPT and showed that TLPT enhanced thoracic duct lymph and leukocyteconcentrations in dogs and rats. Rockson18 TLPT andintestinal motility exerted during SPT increase lymphatic transmural pressuredue to compressing lymph vessels so the lymph flow increased consequently.

Nollet al22 examined the importance of osteopathic treatmentprotocol including the thoracic lymphatic pump on elderly resident patients inhospitals who suffered from pneumonia, the results were significant differencein the rate of change in WBCs counts between days 1 and 3, also he dedicated itto the spleen that acts as a reservoir of antibodies and leukocytes that expelledinto circulation by contraction of the spleen. This augments importance of