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**Title:** The association of smoking and blood viscosity

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**Body:** Despite the efforts towards controlling all well known risk factors, pulmonary and cardiovascular diseases are still the most common causes of death. This obvious fact stimulates the investigators to look for new risk factors. We aimed to investigate the relationship between smoking and blood viscosity from this point of view. One hundred people were invited and three groups were formed. group 1 composed of exsmokers, group 2 composed of individuals who had been smoking, group 3 composed of the individuals who never smoked. Measurements of blood viscosity were performed at three different shear rates. Since the hematocrit levels can significantly effect viscosity, in order to avoid this, hematocrit levels were fixed at 40.

Table 1: Blood viscosity of groups at different shear rates

	Hct	BV1	BV2	BV3	%40 BV1	%40BV2	%40BV3
Group1	42,58±3,99	9,10±2,10	5,42±1,31	4,46±0,60	11,96±2,10	8,09±1,72	7,23±0,41
Group 2	44,17±8,92	9,43±1,81	5,19±1,04	4,37±0,52	12,29±1,79	7,74±1,81	6,95±1,10
Group3	39,07±5,98	8,19±1,47	5,15±0,69	4,14±0,51	11,07±1,46	7,90±1,03	7,04±0,53

Viscosity measurements of groups measured at BV1;23 s-1, BV2; 115,2 s-1, BV3; 230 s-1:

According to our results we may conclude that smoking effects the measurements of blood. We found that blood viscosity was higher in smokers and exsmokers compared to the ones who never smoked.

Table 2: Statistical analysis among groups

	Hct	BV1	BV2	BV3	%40BV1	%40BV2	%40BV3
Group1-Group2	0,338	0,689	0,221	0,971	0,652	0,941	0,095
Group1-Group3	0,658	0,138	0,001***	0,642	0,133	0,022*	0,478
Group2-Group3	0,459	0,188	0.004**	0,506	0.201	0.011	0,069

\*p <0,05, \*\* p<0,01, \*\*\* p<0,001

We think that corrective measures for increased blood viscosity may be important for preventing and/or treatment of related diseases mainly cardiovascular ones.