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**Topic:** Malnutrition treatment and prevention

**Title:** Protective Effect Of *Grewia Bicolor* On Some Markers Of Oxidative Stress In Wistar Rats

**Presentation Type:** Poster

The increase of the consumption of fat and fructose is associated to the increase of the reactive oxygen species and lipid peroxydation in our tissue. Soluble dietary fibers significantly decrease synthesis of the fatty acids and inhibit the absorption of the fat. These considerably improving the antioxidant statute. For these reasons, it is necessary to consume the plants very rich in soluble dietary fibers like *Grewia bicolor*.

**Objective:** The aim of this study was to evaluate the effect of the consumption of *Grewia bicolor* on some markers of oxidative stress in Wistar rat feed with high fat/high fructose diet.

**Method:** The aqueous extract of *G.bicolor* at a dose of 400 mg / Kg BW was administered to rats feed with high fat/high fructose diet. After 21 days of treatment, the rats were allowed to twelve hours of fast and sacrificed. Plasma, erythrocyte hemolysates and liver and kidney homogenates were used for the evaluation of catalase activity, malondialdehyde and thiol protein levels.

**Results:** This study revealed that, simultaneous administration of experimental diet and aqueous extract was observed to significantly decrease of malondialdehyde of the hemolysates ( $3,184 \pm 0,081$ ), kidney ( $2,993 \pm 0,196$ ) and liver ( $2,278 \pm 0,029$ ) and a significant increase of plasma thiol proteins ( $3,638 \pm 0,440$ ) and catalase activity ( $0,792 \pm 0,058$ ).

**Conclusion:** These results suggest that the aqueous extract of the stems of *G. bicolor* could be effective in improving some oxidative stress markers.