DISCUSSION

Thalassemia is a haemoglobinopathy that lead to formation of an abnormal heamoglobin which could under certain physical conditions aggregate in the blood vessels And form thrombus with their spectrum of consequences a according to severity of thalassemia and the predisposing factors, here we discuss the ophthalmological findings that we diagnosed in studied group; most common signs was iris washed appearance that could be due to degenerative changes occurring in the epithelium and even affect crypts [14] to be well formed other common findings presented by vascular toruousity of the retina caused by accumulation of abnormal hemoglobin [1,4] but not to a state of closure or "ischemia " a matter we want to discuss here, our theory is : degenerative changes that affect regenerating tissues like epithelium and smooth muscles increase capacity of blood vessels to be more realistic and expanding in size in response to volume increment[15]. Among the studied group only two patients were had mild decrease in visual acuity while the other had normal acuity exam as we explained above the frequent blood transfusion with high heamoglobin level lead to high oxygen level which is very important for tissue metabolic activity especially in case of retina as process of dawn and dusk adaptation repeatedly occur throughout the day and consume such high level of oxygen .tow patients among studied group were found to have conjuctival pathologies one in the form of ptergium and the other inclusion cyst after we did surgical removal for both (excisional biopsy with 2 mm pathology free margin) and sent for histopathological examination the result was degenerative epithelial changes and thinning of lamina propria these findings explain how thalassemia associated with epitheial degeneration mostly because of decreasing blood level of vitamin E which is attributed to its increased consumption pursuant to the oxidative stress; chronic hepatic iron overload , while causing a substantial reduction of serum lipid can lead to concurrent reduction of serum vitamin E ,some studies have reported a serum zinc deficiency resulted from the release of Zn from hemolyzed red blood cells[3,16].

Underlying mechanism of endothelial dysfunction in B-thalassemia is thought to be due to NO(nitric oxide) bioavailability which lead to structural arterial alterations and consequently potential changes in mechanical properties this will associated with increase luminal diameter in response to increase intraluminar pressure as compared with sickle disease in which the sickling of red blood cells which adhere to both vascular endothelium and white blood cells also vascular endothelium is activated with up regulation of adhesion molecules[17,18].

CONCLUSION:

Most ophthalmological changes we found involve the epithelium in form of degeneration with a very mild or no ischemic changes as thalassemia consider a condition of well oxygenated status.

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