



НАТРИЙ ТИОСУЛФАТНИНГ АТЕРОКАЛЬЦИНОЗГА
ТАЪСИРИ (ЭКСПЕРИМЕНТАЛ ТАДҚИҚОТ)

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EFFECT OF SODIUM THIOSULFATE ON
ATHEROCALCINOSIS (EXPERIMENTAL STUDY)

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Background: Atherocalcinosis, an advanced stage of atherosclerosis, remains a significant challenge in modern medicine, requiring effective approaches to limit vascular calcification.

Objective: To evaluate the effect of sodium thiosulfate on atherocalcinosis under experimental conditions.

Methods: An experimental study was conducted to assess morphological changes in vascular tissues following treatment with sodium thiosulfate. Comparative analysis was performed between treated and untreated groups, focusing on calcification and structural alterations of the vascular wall.



Results: The group treated with sodium thiosulfate demonstrated a significant reduction in calcification foci. Deposition of calcium salts was limited, and the degree of mineralization in the aortic wall was decreased. A reduction in the number of foam cells was also observed, although fibrous plaques persisted. Microscopic analysis revealed partial restoration of elastic lamellae and improvement in vascular wall structure. However, the treatment showed limited effectiveness in early and intermediate stages of atherosclerosis.

Conclusion: Sodium thiosulfate exhibits a predominantly anti-calcific effect and is effective in limiting the progression of vascular calcification in advanced stages of atherosclerosis, although its impact on earlier stages remains limited.

Keywords: *atherosclerosis, atherocalcinosis, sodium thiosulfate, vascular calcification, experimental study, aorta, foam cells, mineralization, vascular pathology, anti-calcific therapy.*

Атеросклерознинг илғор босқичларидан бири бўлган атерокальцинозни чеклаш замонавий тиббиётнинг долзарб масалаларидан бири ҳисобланади. Ушбу тадқиқотда натрий тиосульфатнинг атерокальцинозга таъсири экспериментал шароитда ўрганилди.

Натижалар шуни кўрсатдики, тиосульфат билан коррекция қилинган гуруҳда кальциноз ўчоқлари сезиларли даражада камайган. Кальций тузларининг чўкиши чекланган ва аорта деворида минерализация даражаси пасайган. Шу билан бирга, кўпиксимон хужайралар сони камайган, аммо фиброз бляшкалар сақланиб қолган.

Микроскопик таҳлилда эластик ламеллаларнинг қисман тикланиши ва томир девори структурасининг яхшиланиши кузатилди. Бироқ



препарат атеросклерознинг эрта ва ўрта босқичларига тўлиқ таъсир кўрсатмади.

Хулоса: Натрий тиосульфат асосан анти-кальцифик таъсирга эга бўлиб, атеросклерознинг илғор босқичларида кальциноз прогрессиясини чеклашда самарали ҳисобланади.

