446 Relationships Between Four Basic Types of Atherosclerotic Lesions in Human Aorta and Coronary Arteries (Planimetric Study). G.G. Avtandilov.
Federation Proc. 25, Part II (Translation Supplement) T157-T160 (Jan.-Feb. 1966).

The evolution of atherosclerosis in the human aorta and coronary arteries is, in the majority of cases, characterized by quite definite general relationships between the extent of lipid patches, fibrous plaques, combinations of the two, and calcific lesions (the "usual type of morphogenetic pattern"). These general relationships between the structural changes in the atherosclerotic aorta were expressed (according to autopsy observations in Nal'chik) as follows: in the fourth decade of human life, the area of intima affected by fibrous changes was less than half the area affected by lipid patches; in the fifth decade, these two types of lesions were approximately equal in extent; in the sixth decade, the relative extent of these two types of lesions remained the same, but the extent of mixed lesions (combinations of the two) and the extent of calcific lesions increased by almost one-half; in the seventh decade, the area of fibrous plaques and destructive-dystrophic changes was almost double the area of lipid patch formation. The evolution of structural changes in the coronary arteries was, in general, characterized by the same regularities: the interrelationships between the manifestations of atherosclerosis in the descending branch of the left coronary artery was almost exactly duplicated in the right coronary artery ten years later and in the circumflex branch of the left coronary artery almost 20 years later. Approximately one-third of cases studied showed significant deviation from the typical "age profile" established for the morphogenesis of atherosclerosis in these blood vessels; these variants consisted of instances in which the pathological morphology was dominated by one of the following processes: (1) lipid sorption (the predominantly "sorptive" type); (2) fibrous plaque formation (the predominantly "fibroplastic" type); or (3) formation of mixed and calcific lesions (the predominantly destructive-degenerative" type). -- Author's conclusions

447 The Prognosis of Patients with Epilepsy. E.A. Rodin, R.J. Rhodes, and N.N. Velarde.
J. Occ. Med. 7, 560-563 (Nov. 1965).

Long-term complete freedom from epileptic seizures has not been substantially achieved with the newer anticonvulsant medications. Only about one-third of the patients tend to become seizure-free for a minimum of two years. A follow-up study involving the reevaluation of 90 patients who had been seen initially at least five years earlier showed that seizures had become completely controlled for at least two years in 29 patients (32.2%); for five years, in 15 (16.6%) of the total group. To define the characteristics of patients whose seizures were arrested, as opposed to those who continued to have attacks, four different statistical procedures were performed: (1) intercorrelation of 155 clinical neurological, electroencephalographic, and psychological variables; (2) factor analysis of 50 variables in order to demonstrate groups of findings that form a pattern relating to seizure control; (3) tests of significance between means of findings in the controlled-seizure and noncontrolled-seizure groups; and (4) regression analysis in order to combine variables for the best prediction of seizure control. Patients with a long-standing seizure disorder which clinically showed temporal-lobe characteristics had not become completely seizure-free. The best outcome was in patients who were intellectually intact and neurologically normal on examination, had no evidence of organic disturbances on psychological tests, a relatively recent onset of their seizure disorder, and who did not have either temporal-lobe characteristics in their seizure patterns or focal minor motor seizures. The patient's employment status was found to be related to his intelligence level, the presence or absence of organic features on psychological tests, and his past schooling, rather than to the frequency of his seizures. There are 11 references. -- Authors' summary

448 Lung Cancer and Environment: A Study of Long-Term Exposure to Motor Fumes in Tunnels.
S.I. Kooperstein, A. Schifrin, and T.J. Leahy. J. Occ. Med. 7, 626-629 (Dec. 1965).

No mortality or morbidity from primary lung cancer was found among a group of 97 retired tunnel police officers who had worked within the Holland and Lincoln Tunnels, and had been in retirement for at least ten years after 25 years of active service. No case of primary lung cancer was found among the 25 retired police officers studied who had died during this same retirement period. Among the 16 living nontunnel retired police officers included in this study, there is one with primary lung cancer successfully resected 11 years ago. The interval between initial exposure in the tunnels and the time of this study was at least 18 years and as long as 37 years; in 89.7% the interval was over 30 years. There are 40 references. -- Authors' summary

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