

From our reporter at the 50th Anniversary Congress of the Pan American Medical Association in Hollywood, Fla.

Progress in underwater medicine

Commercial divers can now descend to 1,000 feet by breathing a helium-oxygen mixture, but using this mixture also exposes them to the high-pressure nervous syndrome, characterized by mental deficits and trembling hands (SN: 5/1/76, p. 284). Adding nitrogen to this breathing mixture can reduce the dangers of the syndrome, Peter B. Bennett and his colleagues at Duke University Medical Center have found, at least in simulated dives. This mixture, Bennett concludes, "may be a new method of deep sea diving that allows men to dive to previously unobtainable depths."

Another problem, gas in the lungs, appears to be far more common among sports divers than underwater medicine specialists have realized, accounting for some 50 percent of their medical complications. This is the conclusion of Ron Sampson and George Bell of the University of Miami School of Medicine after diagnosing and treating sports divers for various problems. Gas in the lungs can rupture the lungs and kill the diver unless quickly treated by recompression in a hyperbaric chamber.

Homosexuality and biology

Scientists tend to believe that homosexuality is a psychological rather than a physiologically based condition. Sex hormone tests, for instance, largely suggest that male homosexuals are not deficient in male sex hormones. And when male homosexuals are given injections of male hormones, the hormones tend to intensify their homosexual cravings rather than give them heterosexual ones. But now one case of homosexuality apparently related to hormone levels is reported by Hans K. Wehrheim, a psychiatrist at the French and Polyclinic Medical School and Health Center in New York City.

The case concerned a young man who said that he had been a homosexual ever since he was seduced by a homosexual as a teenager. But as he grew older, his desire for men decreased. In addition, he had a high-pitched voice, little facial hair and poor muscle development for a man. Examination also revealed that he had relatively small testes. On the hypothesis that his homosexual orientation might be related to a deficiency in male hormones, Wehrheim gave him male hormone treatments. The young man then grew facial hair. His muscles developed and his voice became deeper. He started experiencing heterosexual desires and heterosexual relationships.

"One wonders how many other men start functioning as homosexuals because of a feeling of heterosexual inadequacy," Wehrheim concludes.

Amputation in the elderly

Some 70 percent of amputations for vascular disease are performed in persons age 60 and over. Yet anywhere from 11 percent to 48.6 percent of them die (depending on who presents the figures). The lowest figure, 11 percent, comes from U.S. Veterans Administration hospitals.

Alan Braverman and his geriatrics team at Queen Mary's Hospital in London now report that they have lowered the death rate to 5.5 percent in 50 amputees age 60 and over.

Braverman attributes their success to several factors. For one, 60 percent of the leg amputations were performed below the knee, which provides a far greater chance of rehabilitation than an above-the-knee amputation, the kind that is usually performed on older patients. For another, a pneumatic prosthesis had the amputees walking within one week after amputation. Finally, the team provided extensive psychological support.

Kidney dialysis and psychological risk

Twelve percent of kidney dialysis patients die every year. Doctors suspect that a number of these deaths may be the result of conscious or subconscious suicidal behavior on the patients' part, that is, their not carrying out dialysis and other medical instructions as ordered. H.K. Lee of The Bronx-Lebanon Hospital Center in the Bronx, N.Y., has investigated 45 dialysis patients at his center to see whether he could identify such noncompliant patients early in dialysis.

He reports that he can. He has found four psychiatric factors that have significant correlation with noncompliant behavior. They are anxiety/depression, poor impulse control, anger/excitability and a resistance to dependency. Patients who exhibited three or four of these factors were considered high-risk patients. In fact, three of the identified high-risk patients died due to noncompliance shortly after the study.

Mistakes medical examiners make

In spite of their extensive training in performing autopsies, medical examiners and pathologists can still make mistakes in pinpointing the cause of a death, reports Milton Halpern, retired chief medical examiner for New York City and president of the PAMA's Section on Forensic Medicine.

Several common mistakes they make, he says, include ignoring the age of a wound; blaming death on a drug that happens to be in the body at the time of death but that is not the cause of death, and blaming death on disease that is present but that is not the cause of death.

Halpern draws on his forensic medicine experience to make these points. For instance, he was called in on a case where foul play was suspected in the death of a man at a Veterans Administration hospital. A pathologist had already performed an autopsy on the corpse and found fractured ribs and spine, concluding that they were the cause of death. However, the pathologist had also photographed the corpse, and when Halpern examined the photographs, he noted that there was no sign of red in the wounds, only brown. The lack of blood, Halpern says, indicated that the fractures were at least two or three weeks old at the time of death and hence not the cause at all.

Lopsided is beautiful

Just as people have a left and a right brain hemisphere, so do they have a left and right face, and these faces are rarely symmetrical—one eyebrow may be higher than another, the nose may lean more to one side of the face, one corner of the mouth may slant up and the other down, and so forth. Do people find an asymmetrical or symmetrical face more beautiful? The cursory observation of J.A. Didio, chairman of anatomy at the Medical College of Ohio, is that people prefer asymmetry.

Didio showed his students a photograph of a face that was perfectly symmetrical. The students found the face inoffensive, but not particularly attractive. Didio photographed the asymmetrical face of a man and made a photographic composite of each side of the face, so that each composite formed a symmetrical face. He asked the man whether he preferred the symmetrical composite of the left side of his face, the symmetrical composite of the right side of his face, or his natural asymmetrical face. The man said he preferred the latter. Didio then geometrically measured what is considered by many people to be the most beautiful face in the world, that of the Mona Lisa. He found it to be considerably asymmetrical. Even that famous Mona Lisa smile is lopsided, he reports.