should be considered in the differential diagnosis of asphyxiation. Whenever un-
explained choking, dyspnea, or cyanosis occurs in an infant, a cyst of this nature should be ruled out by careful visualization of the base of the tongue. The importance of this becomes apparent when it is realized that this condition is readily amenable to treatment. Since these cysts are usually near the midline, the ordinary large wooden tongue depressor may cover and flatten them, obscuring them from the examiner. A small, infant size tongue blade therefore should be used in this examination.

D. S. H.


During a month's period, four volunteer subjects were confined continuously in an elaborate low pressure chamber which was equipped as adequately as possible for comfort, recreation and exercise, and into which attendants entered through a communicating lock. Ascent was made at the rate of 2,000 feet per day to 9,000 feet, at 1,000 feet per day to 15,000 feet, and at 500 feet per day thereafter, all made gradually during a two hour period in the evening. On the last three days of the study, altitude tolerance was evaluated by an eight hour ascent to 29,000 feet without supplementary oxygen, and a five hour ascent to 50,000 feet using only the non-pressurized diluter demand oxygen regulator. None of the subjects were seriously affected by altitude below 20,000 feet, and at no time during the study was the clinical picture of 'mountain sickness' observed. There was a general tendency to lazziness and loss of strength; the subjects were unable to exercise as much above 18,000 feet as below.

The changes in (arterial) blood and alveolar gases may be summarized as follows: Arterial carbon dioxide pressure fell progressively to as low as 17 mm. at rest with corresponding oxygen pressure of 29 mm. Several resting arterial oxygen saturations below 60 per cent were found, and in most cases both the arterial oxygen pressure and saturation fell during work. Above 10,000 feet, alkaline reserve decreased from a sea level of 46 vols. % to an average of 34 vols. %. All four men became alkalotic with arterial pH values of 7.45 to 7.60; despite this, and the low carbon dioxide pressures, no signs of tetany were seen. Although the alveolar oxygen pressures followed the mean curve described by Boothby, the alveolar carbon dioxide pressures fell below the Boothby curve by 5 mm. at 18,000 feet and 10 mm. at 25,000 feet. The reticulocyte count, as well as the hemoglobin content and red cell count increased moderately in all four subjects. The polycythemia, however, was not great (no counts exceeded 6.7 million) and bore no constant relation to the completeness of acclimatization.

In the electrocardiograms ''most subjects developed progressive lowering of the T-wave with increasing altitude up to 16,000 feet, but the trend was reversed above this altitude and records taken at the peak altitudes show T-waves actually higher than at sea level. Premature beats, slight P-R prolongation and a tendency to sinus arrhythmia with Cheyne-Stokes breathing occurred in some records. Six-foot films showed no change in either size or shape of the heart at increasing altitude. Exercise tolerance decreased in varying degrees in all subjects. The limiting factors were dyspnea or fatigue or both. Changes noted with increasing altitude in the pre-exercise resting pulse, the peak rate attained during exercise and the final rate after recovery. One hundred per cent of oxygen at 20,000 feet markedly in-
creased capacity for work, but the previous and subsequent sea level performances were not attained. . . . Two of the men remained for five hours above 25,000 feet, of which time twenty minutes was spent at 29,000, without supplementary oxygen. . . . On the following day, two men, using ordinary oxygen equipment, stayed for an hour above 45,000 feet, reaching 50,000 feet for a few minutes. . . . These two high runs demonstrated that the men had increased their tolerance for high altitude by approximately 6,000 to 8,000 feet. . . . The measurements indicated that the men reacted to anoxia by an increase in pulmonary ventilation, causing a lowering of the arterial carbon dioxide, a decrease in the alkaline reserve, and an increase in the alkalinity of the blood. These chemical changes, together with the increase in hemoglobin, sustained the arterial oxygen content close to the sea-level value, and minimized the fall in arterial oxygen pressure and saturation. . . . Even pure oxygen did not return the men to their sea-level (work) performance. . . . It is suggested that the fall in alkaline reserve becomes the limiting factor by reducing the buffering capacity of the blood (and that) accumulation of carbon dioxide and the resultant decline in pH then serve as stronger respiratory stimuliants than in the case of the sea-level man. . . . The four subjects did not acclimatize to altitude as completely or rapidly as do mountaineers. The reason . . . may be attributed to the confined quarters which made sustained and strenuous work impossible.”

S. J. B.


A patient with group A blood was transfused with blood from a group O donor where the high titre serum agglutinins of the latter caused agglutination of the recipient’s corpuscles, followed by hemoglobinuria, uremia and death. Such incompatibility is not revealed by the standard cross matching tests (donor’s cells against recipient’s serum) and was only found by subsequent titring of donor’s serum.

The theoretical dangers of transfusion of patients of other groups with universal donor blood containing high titre agglutinins have long been recognized. Aubert et al. in 1942 concluded that the tranfusion of conscious patients of group A with considerable group O serum or plasma containing extremely potent Anti A iso-agglutinins did not produce any action which could be classed as dangerous. However, the group O blood with high and agglutinin titre should be considered dangerous.

Wiener, 1943, points out that when the patient is under an anesthetic the symptoms may be unnoticed and even when the patient is conscious the first symptoms may be those of uremia.

These accidents are rare. The only way such incompatibilities can be detected is by the method of titrating the donor’s serum in every case. However where larger numbers of universal donors are employed in blood banks it appears desirable to accept only those with agglutinin titres below a certain arbitrary level. The titre 256 for X seems to be the upper limit of safety.

K. S. S.


‘‘Three cases of addiction to meperidine hydrochloride are here reported. Two cases were examples of primary addiction to the drug. The third case demonstrates the occurrence of prefer-