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VERBAL PRESENTATIONS

Measuring psychomotor responses

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A computer program (Psychom) has been devised¹ attempting to permit detection of any anaesthetic action of atmospheric nitrogen by measuring motor response times to visual, auditory, or a mixture of both signals. Response times should be shortened in subjects breathing a nitrogen-free gas mixture (Heliox) compared with those breathing air.

It has not yet been possible to demonstrate that testing of this sort can be made sufficiently sensitive to make such detection possible, but similar tests have recently shown increased reaction times in subjects breathing air at 2 ATA [pN₂=160 kPa].²

Subjects respond to the stimulus delivered by the computer program by pressing the left or right mouse buttons. The response time, mean and sd in milliseconds are tabulated by Psychom.

Figure 1A and B shows grouped response times for two volunteers using Psychom in a mode in which the subject makes a choice in responding to a visual or auditory stimulus. These data represent approximately 50 responses to stimuli delivered at random intervals over a 3 min period. Both sets of data are skewed, suggesting that median and confidence limits would be preferable to mean and sd in comparing runs. The considerable difference between data for

two individuals shows that data from different people should not be pooled.

Using Psychom with 'sound mixed with visual stimuli' produces data with an undesirably large coefficient of variation (Fig. 1A). This is reduced by using data derived from responses to a single type of stimulus, either sound or visual (Fig. 1B).

Keywords: measurement techniques; response; psychomotor

References

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- 2 Petri NM. *Undersea Hyperb Med* 2003; **30**: 293–303

Haemodynamic stability of laparoscopic adrenalectomy for pheochromocytomas vs other adrenal tumours

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Adrenalectomy for pheochromocytoma can induce high levels of catecholamine release that may result in episodes of severe hypertension and cardiac arrhythmia with subsequent cardiovascular collapse.¹ The introduction of laparoscopic surgery and

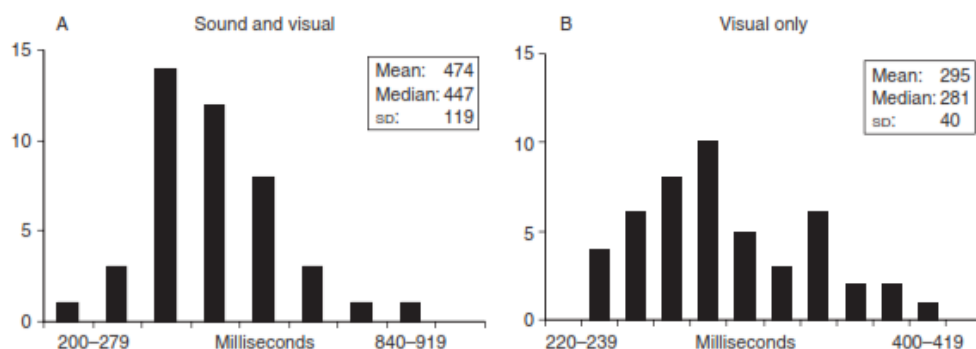


Fig 1 (A) No. of responses in 80 ms groups. (B) No. of responses in 20 ms groups.