explained by the hypothesis that steroid increases the permeability (Rowland, 1976) of the defective plasma membrane of the muscle fibres of DMD cases (Mokri and Engel, 1975), resulting in additional release of CPK to blood. Similar but less appreciable CPK release probably may occur in other MD cases. The CPK clearance factor probably remains constant in these cases. A possible explanation of the rise in CPK in some carriers was proposed by Hughes et al. (1971) that there are two populations of carriers—normal and abnormal. The abnormal carriers might respond to steroid in a similar way provided they had similar plasma membrane defects to DMD cases. Other cases of neuromuscular disorders and normal controls probably have no such plasma membrane defect.

The results indicate that steroid-induced CPK estimation can differentiate MD from other muscle diseases. The test may also help to increase the rate of detection of Duchenne carriers in those cases with 'borderline' basal CPK activity and negative electromyographic and muscle biopsy findings.

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![Image](Neurology Unit, Medical College and Hospitals, Calcutta-700012, India.

**Basal**

**References**


**Comparison between microscopical examination of unstained deposits of urine and quantitative culture**

Sir,

The conclusions reached by Littlewood and his colleagues in their article comparing microscopical examination of unstained deposits of urine and quantitative culture (*Archives*, 1977, 52, 894) are not supported by the data presented. Urine was collected in four different ways, as suprapubic, midstream, clean catch, and bag specimens from children aged 2 weeks to 14 years. A surface bacterial count $\geq 10^5$ was taken as indicating infection in all urine however collected and regardless of the child's age. However, this criterion of infection is not applicable to urine collected by bladder puncture in which any growth indicates infection (Newman et al., 1967; McFayden and Eykyn, 1968; Paterson et al., 1970; Rubin, 1975) nor to bag urine from neonates which often have a surface viable count $\geq 10^4$, but are sterile when a suprapubic specimen is obtained (Edelmann et al., 1973).

By not using these generally accepted criteria of infection and noninfection in suprapubic and bag specimens of urine, the authors will have underdiagnosed infection in some cases of the former, and overdiagnosed infection in some cases of the latter. This vitiated completely the correlation found between urinary infection and the number of bacteria seen on microscopy.

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Dr Littlewood comments:

Our study amounted to a simple comparison between the number of organisms visualised in the urine deposit and the quantitative culture, irrespective of the method of collection. Our data confirm that the culture result can usually be predicted from the number of organisms visualised on microscopy. It is unfortunate that we referred to urines growing $>10^6$ organisms per ml as 'infected'. There was no implication that the patients had a urinary tract infection. We are well aware that any growth from a suprapubic urine is meaningful and bag urines even from healthy infants contain many bacteria (Littlewood, 1971). Whether or not the patients had bacteria within the urinary tract is not the point of the study. Those experienced in the art of urinary microscopy will realise the great benefits that accrue to all if this simple, cheap, interesting, and informative technique is used in the clinic.

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**References**


**Discharge of small babies from hospital**

Sir,

Early discharge of very small babies from neonatal units could be valuable in reducing mother-child separation. Nursery occupancy figures could be reduced, making it possible for a limited number of nurses to care more
Carrying frozen specimens by air

Sir,

The loss of a precious specimen en route to the laboratory must be a bad dream experienced by all research workers. When the journey covers several thousand miles, numerous flights and stop-overs, language and other barriers such as fierce security and customs officials it becomes a veritable nightmare. I have recently spent 3 months in South Korea and other parts of the Far East for which I am greatly indebted to H. J. Heinz and Co. Ltd. I returned with several hundred frozen specimens. They arrived safe, but not without several near disasters. As a result of my experience I write now to offer a few tips which I hope may be helpful for other itinerant workers.

Authorization. Carry an official letter from the organisation sponsoring the research work emphasising the importance of the specimens remaining frozen. This letter should be officially stamped by the British Embassy in the first country visited and any other with particularly stringent security control.

Thermos. Plastic or non-airtight (for dry ice) metal containers are probably the strongest but condensation may occur on the outside. This can be avoided by covering the thermos with polystyrene.

Freezing. With warning, some airlines will provide dry ice. However, the most reliable sources are usually via the main hospital or from a cold storage company (a permit is sometimes required and can be obtained from the local hospital authority). Restaurants or ice cream sellers are a third possibility. The maximum I had to pay for 10 kg dry ice was £2.50, but this would have been much more had it needed to be flown out from the main city. Experiment on quantities of dry ice required before departure, allowing for tropical climates and flight delays. Arrangements for frozen storage at stop-overs (e.g. hospitals or hotels) should be made in advance. This is rarely available at airports.

Carriage. Label thermos 'MEDICAL-FROZEN-URGENT' etc. However, no amount of labelling seems effective against rough handling, exposure to sun . . . or just being forgotten, so insist on taking your specimens as cabin luggage. This may meet with resistance so it is advisable to approach the manager of the air line and request permission for cabin luggage and . . . very important . . . a free baggage allowance for the thermos.

Bon chance! Bon voyage!

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