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Efficacy of Hand Washing with Soap and Water as Compared to Antiseptic Solutions

Hospital acquired infections are one of the main causes of morbidity and mortality and the hospital staff can contribute to the transmission of organisms from infected patients and environment to noninfected patients(1).

In the present study, efficacy of routine hand washing with soap and water and antiseptics was studied in 12 medical personnel. The bacteria carried on the fingers per sq. cm. were counted before and after hand washing by 'Swab rinse method'. It consists of rubbing a sterilized swab thoroughly on six 1 × 1 cm squares of finger tips using templates and these swabs were transpired to 4 ml of sterile distilled water. One ml of this suspension was spread over blood agar plates and incubated at 37°C for 24 ours. The number of colonies grown were counted and calculated to number of organisms per sq. cm of hand surface. Cultures were taken before hand washing, after washing with soap and water and later after washing with 5% Providone iodine W/v and 70% alcohol V/v(2).

The bacterial counts after hand wash with soap and water were reduced by 93.80% in doctors, 94.09% in nurses and by 87.77% in case of ward maids. A hand wash with 5% Povidone iodine W/v and 70% alcohol V/v reduced the counts by 99.77% in case of doctors, 99.83% in case of nurses and 98.32% in case of ward maids.

The organisms grown were identified as *Staph. pyogenes, Bacillus* spp., *Staph. epidermidis* from doctors and nurses. In case of ward maids *E. coli, Klebsiella* spp. and *Pseudomonas* were also recovered. After hand washing, mainly *Bacillus* spp. persisted in doctors and nurses but ward maids harboured *E. coli, Pseudomonas* and *Staph. epidermidis.*

There are two kinds of organisms on the hands: resident and transient flora. Most resident flora are found on the superficial skin surface but 10 to 20% of these are found in skin crevices and are not easily removed by scrubbing but can be inactivated by antiseptics(3,4).

Transient flora may consist of Streptococci, *E. coli, Staph. aureus* and *Pseudomonas.* Persons with eczematous dermatitic skin have *Staph. aureus* and Gram negative organisms which are difficult to remove with hand washing(5).

The reduction in bacterial counts on hands seen in this study is similar to other studies(3,4) and it is recommended that at least in neonatal units all personnel should wash their hands not only with soap and

water but also with providone iodine and alcohol.

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Unusual Presentation of a Suboccipital Lymphangioma

Lymphangiomas are mainly distributed over the posterior triangle of neck (75%) and axilla (20%). The remaining 5% are seen in the mediastinum, retroperitoneal area, plevis and groin. Diagnosis in a classical clinical setting poses no problems and ultrasonography or CT scan are usually unnecessary. We report a rare case of suboccipital lymphangioma which was diagnosed as a sequestrated meningocele, with the diagnosis being arrived at on the histopathological examination.

A 2½-year-old child had a progressively increasing swelling over the nape of the neck since birth. The midline swelling was soft, fluctuate and brilliantly transilluminant, in the suboccipital region extending down to C.4 spine. It measured about 12 cm × 10 cm in size. There was a doubtfully positive cough impulse. Neurological examination was normal. A clinical diagnosis of meningocele was considered. Plain *X*-rays of the skull and cervical spine were normal. Ultrasonographic examination of the swelling suggested a cystic lesion with the possibility of a suboccipital meningocele. CT scan revealed a low attenuation suboccipital mass with erosion of the underlying skull. However, iohexol CT-cisternography did not show any flow of the contrast into this sac (*Fig.*) At this stage, the possibility of a sequestrated meningocele was considered in a classical clinical setting. A total excision of this suboccipital cystic lesion was carried out through a midline suboccipital incision. The cyst was multiloculated, contained hemorrhagic fluid (iatrogenic), and had a smooth and shiny wall. There was no evidence of any intracranial extension. Histopathological examination demonstrated it to be a lymphangioma. The postoperative course was uneventful.

Cystic lymphangiomas develop from the sequestration of lymph sacs during embryonic life(1). The present location of the lymphangioma is believed to be an ectopic variant resulting from sequestration and probable migration during embryogenesis. Common lesions mimicking a lymphangiomas are hemangiomas, dermoid