EDITORIAL : VAN DIE REDAKSIE

SUFFOCATION CAUSED BY PLASTIC BAGS

The danger of suffocation from discarded plastic (polythene) garment bags, which are nowadays often used as improvised mattress and pillow covers, has become recognized as an important accidental hazard for infants and small children. There is, for instance, the possible danger of suffocation of small children who pull these bags over their heads while playing. A number of deaths caused in this way have been reported.

The *Journal of the American Medical Association* has drawn attention[1,2] to this danger and to deaths that have occurred, and may occur, when small children play with plastic bags and when infants become ensnared in the thin polythene film. It has been stated that an electrostatic charge, generated by friction from handling, causes the film to cling tightly to the nose and mouth. The child is then unable to free himself, and consequently suffocates.

A survey in the USA revealed that from January to March 1959 twenty deaths caused by suffocation from plastic materials were reported. For various reasons, however, these figures do not reflect the true incidence of deaths caused in this way. In some States reports of deaths cover only a period of two months; other States are not able to decode their records for such detailed information. The majority of the deaths caused by plastic bags occurred in infants under six months of age. Plastic sheets caused seven deaths, plastic pillow cases three deaths. In six cases where plastic sheets were the cause of death the mother had used them to cover the mattress in the infant's crib. According to a survey conducted by the United States Public Health Department during the first six months of 1959, 61 reported fatalities had been attributed to suffocation from plastic bags. Since then more deaths have been attributed to this cause. It is not unlikely that the number of deaths of children in the USA due to suffocation from plastic bags for the year 1959 may exceed a total of one hundred.

Various organizations are intensively studying ways and means of publicizing this danger and warning parents against the misuse of plastic bags. In America warnings, including spot announcements at various intervals, have been broadcast in radio and television programmes. The plastics industry has undertaken a nation-wide advertising campaign to inform the public of the dangers of misusing plastic bags. The dry cleaners have been urged to warn customers against giving plastic bags to children to play with, since the use of plastic dry cleaners' bags as waterproof sheets for babies' beds has caused many deaths. Manufacturers of plastic garment bags are supplying warning labels or are modifying the bags in order to provide a safer product. Furthermore, legislation has been introduced to enforce the use of warning labels. A comprehensive research programme is being carried out on the mechanics of this problem.

The fact that plastic products are so convenient to use suggests that they will continue to be used. Plastic film is popular and useful and is found in the home on a variety of household articles, clothes, produce, toys, and other objects. It is therefore imperative that parents take the following precautions:[2]

1. Do not give plastic bags or plastic film in any form to children to play with.
2. After plastic bags and wrappers have served their purpose, destroy them.
3. Do not use plastic film as slip covers for pillows and mattresses or as blanket protectors.

In an emergency the following steps are recommended. If the child's breathing has stopped, the most urgent need is to restore breathing. Send for help immediately and, in the meantime, try to resuscitate the child, using the mouth-to-mouth technique which is recommended by the American Red Cross Society as the most effective method of resuscitation.

Resuscitation by the mouth-to-mouth method should be carried out as follows: Place the child on his back and extend his head by pulling the lower jaw forwards. A towel or pillow under the shoulders will facilitate this procedure. Place one hand on the child's stomach to prevent overinflation. The operator now takes a deep breath, places his mouth over the child's mouth, holding the nostrils closed or covering the nose as well if the subject is a baby, and blows air into the child's lungs. This procedure is repeated 12-20 times a minute.

A special S-shaped airway with a curved flange* has recently been introduced for use by physicians, dentists, nurses, anaesthetists policemen, firemen, etc. This airway has application in unconscious non-breathing patients suffering from any form of asphyxia, and its use makes mouth-to-mouth breathing easier and more effective. It provides a breathing tube for the patient, and it has a mouth piece for the rescuer that eliminates direct oral contact—the strongest objection to direct mouth-to-mouth breathing.

* Manufactured by Messrs Johnson & Johnson (Pty). Ltd.

1. Medicine at Work (1959): J. Amer. Med. Assoc. **169**, 2021.
2. Special Report, Committee on Toxicology (1959): *Ibid.*, **170**, 1667.

NUWE MIDDELS EN KLINIESE TOETSE

As gevolg van die groot aantal middels wat daar deesdae gedurig op die mark kom, word kliniese toetse van hierdie middels al hoe meer 'n belangrike en verantwoordelike probleem. Die meeste etiese farmaseutiese firmas stel vir hulself hoëwetenskaplike vereistes by die navorsing na en vervaardiging van hierdie middels. Nadat middels op die mark gekom het, word dit egter in die eerste plek die verantwoordelikheid van die kliniese dokter om seker te maak dat die middels wel voldoen aan die terapeutiese vereistes wat van hulle verwag word.

In die mediese pers dwarsoor die wêreld verskyn daar nou gedurig berigte en artikels oor die gebruik van die

nuwe middels. Dit kan dus 'n goeie doel dien om 'n paar spesiale oorwegings te noem wat gedurig in hierdie verband in gedagte gehou moet word.

In die eerste plaas wil ons sekere basiese en etiese oorwegings noem. Die kliniese ondersoeker wat 'n toets onderneem moet seker maak daarvan dat, sover hy dit kan help, geen pasiënt werklik skade ly as gevolg van die uitvoering van die toets nie. Ook is dit gewens dat elke pasiënt behoort te weet dat hy 'n spesifieke toets ondergaan. Nou is dit wel waar dat hierdie oorweging dit soms moeilik maak om die faktor van onbewuste beïnvloeding uit te skakel. Om hierdie rede sou dit dus 'n goeie algemene reël wees om te sê dat die dokter geen toetse met pasiënte moet onderneem, tensy hy dit nie ook in gerustheid en met opregtheid ten opsigte van 'n intieme familielid sou onderneem nie.

Die dwaling van die ‚terapeutiese fout' word nog te dikwels begaan. Die argument dat omdat 'n pasiënt beter word na 'n behandeling, dit die spesifieke middel en die besondere metode van toediening is wat tot die beterskap lei, hou nie steek nie omdat daar baie ander faktore is wat 'n rol kan speel. Dit is dus duidelik dat die gebruik van behoorlike kontrolegevalle altyd noodsaaklik is. Dit is nie hier die plek om die bepaalde maniere van kontrolestudies te beskryf nie—elke navorser behoort bekend te wees met die maniere waarop betroubare kontrole en dubbel-kontroletoetse uitgevoer kan word. In algemene terme klink dit egter tog voor die hand liggend om te sê dat geen gevolgtrekking by die uitvoer van kliniese toetse van hierdie aard betroubaar kan wees tensy werklik vergelykbare groepe vergelyk word, en tensy die wisselende faktore wat ondersoek word, streng afgebaken en geïsoleer word nie.

Behalwe oorwegings ten opsigte van die pasiënte met wie die toetse onderneem word, moet die ondersoeker homself ook tevrede stel dat die pasiënt werklik die verwagte uitwerking van die middel ervaar. Byvoorbeeld, by die gebruik van middels waar die terapeutiese uitwerking afhang van 'n bepaalde vlak van oplossing van die middel in die bloed, moet die ondersoeker ook vasstel of daardie vlak van oplossing in die bloed gedurende die toets wel bereik word. Hierdie oorwegings is veral belangrik by die ondersoek van die uitwerking van middels op akute toestande.

In die geval van chroniese toestande waar die simptome dikwels of hoofsaaklik van subjektiewe aard is, soos byvoorbeeld, pyn in die geval van gewrigsontsteking, word die kwessie van bepaling van enige graad van verbetering besonder moeilik. Hier sal die ondersoeker 'n stelsel van bepalingswaardes moet uitwerk op so 'n manier dat die gegewens tog gekontroleer kan word deur ander ondersoekers en vergelykbaar is van een pasiënt tot 'n ander.

By die beantwoording van die vraag of verandering of verbetering van die siektetoestand waarvoor 'n bepaalde middel gebruik is, plaasgevind het, is die kwessie van die bepaling van die *graad* van die verbetering besonder belangrik. Tensy daar gebruik gemaak word van 'n skaal wat min of meer objektief is, en wat dus wetenskaplike vergelykingswaarde het, kan die gevolgtrekking baie misleidend word.

'n Laaste oorweging wat tog ook genoem moet word by die uitvoer van toetse, is die kwessie van moontlike finansiële verwikkeling van die ondersoeker. Enige geneesheer of kliniese beampte wat 'n toets onderneem, moet waak teen die moontlikheid van 'n aantyging van persoonlike voordeel. Om hierdie rede is dit as algemene beginsel gewens om geen finansiële steun aan te neem nie behalwe in sover as wat finansiële steun die objektiewe koste van die ondersoek kan dek.

Die nuwe ontwikkeling van die grootskaalse produksie van farmaseutiese middels het 'n nuwe tyd in die kliniese medisyne ingelei. Die moontlikheid bestaan dat baie groter sukses by die behandeling van baie meer toestande as wat in die verlede die geval was, bereik kan word. Die toestand van sake dui egter nie net op moontlike sukses nie, maar beklemtoon ook die besondere verantwoordelikheid wat daar nou rus op sowel die farmaseutiese firmas as op die dokters ten opsigte van die uiteindelike wel en wee van die gemeenskap wat deur hulle gedien word.