were assayed by high-pressure liquid chromatography by Dr. G. Smaldone (Stony Brook, NY), who was blinded to the source of individual samples. Only in one sample from one of our HCWs was pentamidine detected at a level of 1.625 ng/ml, approximately the same as the lower exposure levels in the study by O’Riordan and Smaldone. During the sampling day this HCW had been present during 35 individual treatments and had been present during some 780 treatments over the previous month. A subsequent sample on this HCW was negative later the same week.

We consider administration of AP via the Fisoneb system, even in a high-volume clinic such as ours, to have negligible effects on individual HCWs. We agree that low-dose environmental exposure is inevitable, and that occasional higher levels due to environmental spillover should be expected, although they can be minimized. More important, we believe that breath-activated nebulizer systems, such as the Fisoneb system, are preferable because their very design significantly reduces environmental spillage, since they turn off after inspiration ceases or if coughing occurs.

R. Andrew McIvor, M.B., B.Ch., Leslie R. Lee Pack, and Charles K. Chan, M.D., F.C.C.P., Toronto Central Pentamidine Clinic, Toronto, Ontario, Canada

REFERENCES


Adenoid Cystic Carcinoma Mimicking a Dermoid or Hydatid Cyst

To the Editor:

A 75-year-old nonsmoking male patient was admitted with the complaints of backache and clear, watery discharge on two occasions during coughing. Chest radiography revealed a mass lesion occupying almost all of the left hemithorax. A multiloculated cyst with solid components and calcified foci was observed on computed tomography of the thorax (Fig 1). Surgery was performed on the basis of the preliminary diagnosis of hydatid or dermoid cyst. Adenoid cystic carcinoma was found in the pathologic examination.

Many cases of adenoid cystic carcinoma arising from the bronchial tree have been reported. Few reports have described calcification.

To the Editor:

We thank Dr. McIvor and his coworkers for their interest in our study and for sharing their data.

Analyzing random HCW urine specimens (assayed at our laboratory) from a large treatment center (up to 1,200 treatments per HCW per month), they found only one positive urine specimen on this HCW. There are three possible explanations for the differences in the two studies:

1. The Toronto group administered all treatments via the Fisoneb system, an ultrasonic nebulizer that only produces aerosol when a patient holds down a switch on the device. In our article we suggest that the most likely explanation for high-level intermittent exposure of HCWs to pentamidine is “disconnected nebulization” (ie, when a patient removes the device from his mouth in order to cough, he may neglect to switch it off). Because of the design of the Fisoneb, such disconnected nebulization may be less likely to occur.

2. Another important difference between the studies is the design of the treatment rooms. We used a treatment room with an exhaust system that operated at 60 cu ft/min. In contrast, McIvor et al had a specially designed treatment room that exhausted air at 450 cu ft/min during treatments. The frequency of air exchanges may be important. In our initial report of positive results in urine specimens from in HCWs, levels were higher at Stony Brook, where fewer treatments were administered but where the frequency of air exchanges was also less when compared with a Miami center, which had a more effective air exchange system but at which workers performed a much larger number of treatments.

3. In our study, HCWs supervised the treatments. In the Toronto study, the HCW was not in the room during treatments, which were self-administered by the patients. In general, because the possibility of disconnected nebulization is greatest during the absence of HCWs from the treatment room, it is usually recommended that HCWs not enter a room until two air exchanges have taken place following completion of an unsupervised treatment. This would take 30 min with our system. In Toronto, the more effective exhaust system would markedly reduce the waiting time for two air exchanges. Thus, patient-administered treatments are likely to be much less hazardous to HCWs in Toronto than they would be under our system.

While the Toronto group should be congratulated on the effectiveness of their system in avoiding high exposures of HCWs to pentamidine, the conditions under which our HCWs administer pentamidine are, we believe, more typical of clinical practice than the conditions under which the Toronto group practices. Nevertheless, the simple precautions we advocated in our article can reduce the likelihood of high exposures with our system. We agree that chronic low-level exposure to pentamidine is inevitable and that the long-term consequences, if any, of this exposure are unclear at the present time.

Thomas G. O’Riordan, M.B., and Gerald C. Smaldone, M.D., Ph.D., Pulmonary/Critical Care Division, State University of New York at Stony Brook, Stony Brook

REFERENCES


Adenoid Cystic Carcinoma Mimicking a Dermoid or Hydatid Cyst

To the Editor:

A 75-year-old nonsmoking male patient was admitted with the complaints of backache and clear, watery discharge on two occasions during coughing. Chest radiography revealed a mass lesion occupying almost all of the left hemithorax. A multiloculated cyst with solid components and calcified foci was observed on computed tomography of the thorax (Fig 1). Surgery was performed on the basis of the preliminary diagnosis of hydatid or dermoid cyst. Adenoid cystic carcinoma was found in the pathologic examination.

Many cases of adenoid cystic carcinoma arising from the bronchial tree have been reported. Few reports have described calcification.

CHEST / 103 / 3 / MARCH, 1993 983
FIGURE 1. Computed tomographic scan shows a cystic mass, with calcification, closely resembling a dermoid cyst.

In most of the reported cases, solid components formed the bulk of the tumor. This case had some peculiarities. Expectoration of clear, watery fluid was reported, and a large cystic mass with wall calcification was observed radiologically.

It is concluded that adenoid cystic carcinoma may present with a cystic appearance mimicking a dermoid or hydatid cyst on radiologic studies.

REFERENCES

1 Enterline HT, Schoenberg HW. Carcinoma (cylindromatous type) of trachea and bronchi and bronchial adenoma. Cancer 1954; 7:663-70

Tetracycline Pleurodesis

To the Editor:

We read with interest the editorial by Heffner and Unruh,1 which appeared in the January 1992 issue of Chest. The authors voiced their regret that injectable tetracycline hydrochloride has been discontinued by the sole manufacturer of the drug. This drug was used for patients with pneumothoraces and as the preferred method of chemical pleurodesis in patients with malignant pleural effusions.2

Injectable tetracycline was not available to us for many years, but we replaced it with sterile tetracycline powder from D.S.A. Company (Hamburg, Germany). The vials are prepared as follows: (1) They remain at 120°C for 20 min. (2) They are cleaned externally with 4 percent chlorhexidine. (3) The rubber caps and aluminum seals are submitted to the same process. (4) The vials are transferred under ultraviolet light to a sterile area, where they are filled with the powder.

Following the Sahn protocol,2 we treated 14 patients with malignant effusion. We dissolved 1.5 to 2.0 g (20 to 30 mg/kg) of tetracycline powder in 50 ml of saline, obtaining a solution with a pH of 2.2. The solution was instilled into the pleural cavity after intrapleural administration of 300 mg of lidocaine and administration of parenteral analgesics. The tube was clamped for 2 h, and the patient was repositioned frequently.

Four of our 14 patients were men with an average age of 69 years and 10 were women with an average age of 70 years. Ten patients had adenocarcinoma, and four had squamous cell carcinoma. All patients reported pain: mild in ten cases, moderate in two cases, and severe in two cases. In the 13 patients with fever, the temperature varied from 37.2°C to 39.6°C during a period of 1 to 3 days. The pleural tube was retained for 1 to 4 days after the procedure.

Follow-up data were available on ten patients. In eight there was no relapse of effusion in a follow-up period of 7 to 180 days (average, 43 days). We did not use preventive antibiotics, and we did not observe local or systemic infection in these ten cases.

We think that the tetracycline powder can be used as a highly efficient and low-cost alternative in these patients.

Carlos Guzman, M.D., and Cesar Quijada, M.D., Clínica Serafil, Santiago, Chile

Adieu, Tetracycline Pleurodesis

(But Not in Germany)

To the Editor:

I read with interest the editorial in the January 1992 issue of Chest in which Heffner and Unruh1 bid a regretful farewell to intrapleural tetracycline, since the injectable tetracycline hydrochloride used for pleurodesis has been discontinued by Lederle Laboratories, apparently the sole manufacturer of the drug in the United States. German chest physicians (and most likely colleagues from other European countries, too) do not need to share these farewell feelings since Grünenthal still produces an intravenous tetracycline hydrochloride (Supramycin pro insuffusion), which has always been used at our hospital for chemical pleurodesis. It is the only injectable tetracycline left on the Germany market, however. Let us hope that Grünenthal will continue production for the sake of patients requiring efficacious and safe pleurodesis.

Ulrich Costabel, M.D., F.C.C.P., Abteilung Pneumologie/Allergologie, Ruhrlandklinik, Essen, Germany

REFERENCE

1 Heffner JE, Unruh LC. Tetracycline pleurodesis: adios, farewell, adieu [editorial]. Chest 1992; 101:5-7

Erratum

The editors of Chest wish to apologize to N. Tony Eissa, M.D., for misspelling his name in his article entitled "Effects of PEEP on Respiratory Mechanics after Open Heart Surgery" (Chest 1992; 102:227-33).