

PERIORBITAL AND ORBITAL CELLULITIS-A REAPPRAISAL.

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Important differences between periorbital cellulitis (PC), orbital cellulitis or abscess (OC), and periorbital swelling (PS) associated with sinusitis have been obscured because these terms are often used interchangeably. All cases of PC and OC with a positive blood, tissue aspirate, or abscess culture seen at Children's or Eye and Ear Hospital in the past 10 years were analyzed. Results (including median age):

	TOTAL	H. influenzae B(HIB)	S. pneumoniae(SP)	Other bacteria
PC	61	57% (15 mos)	18% (12 mos)	25% (6 yrs)
OC	10	0%	0%	100% (11 yrs)

PC caused by HIB and SP, characterized by bacteremia, fever and periorbital swelling, discoloration, induration and pain, is a distinct clinical entity occurring in young children; sinus radiographs frequently demonstrated "cloudy" sinuses, but interpretation of the radiographs was complicated by the small size and indistinct bony margins of the sinuses of infants, and by concurrent upper respiratory infection and overlying soft tissue swelling. Ophthalmoplegia and proptosis, never present in cases of PC, always accompanied OC as did radiographic evidence of sinusitis. OC due to HIB has not been documented in this study or in the literature. PS secondary to sinusitis is characterized by non-tender, non-indurated edema due to venous congestion, not bacterial cellulitis. Careful differentiation of PC, OC and PS secondary to sinusitis is necessary for the selection of appropriate therapy.

ATTITUDES OF HOUSESTAFF, FACULTY AND GRADUATES OF UCLA PEDIATRIC RESIDENCY PROGRAM TOWARD CONTINUITY CLINIC.

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Continuity clinics were organized in the UCLA Pediatrics Department in June 1977. A survey was conducted to evaluate house-staff & faculty attitudes toward continuity clinic & its importance in pediatric training. Graduates of UCLA pediatric program over a 10 year period, 1970 to 1979 were surveyed to ascertain attitudes toward the importance of continuity of care training in the practice of pediatrics. Questionnaires stating the survey's purpose were distributed to faculty, housestaff & graduates of the UCLA pediatric program. Return rate was 94% for faculty & housestaff and 80% for graduates. Continuity clinic was rated on a scale of 1-5 (5=most important) & ranked with 7 other areas of pediatric training. Average rating for continuity clinic was 3.75, 3.29 & 3.24 for faculty, graduates & housestaff respectively. Continuity clinic ranked 5th of 8 areas across each group. However, when considered alone, faculty (43%), graduates (17%) & housestaff (12%) ranked it a most important area of pediatric training. Faculty (86%) & graduates (61%) answered "definitely yes" when asked if continuity of care is a necessary part of housestaff training. Graduates (76%) felt continuity clinic training would have been beneficial preparation for practice. Graduates in academics or private practice revealed no difference in attitudes toward the importance of continuity clinic. This study suggests continuity of care is a necessary, important area of pediatric training, regardless of career choice.

THE INCREASED FREQUENCY OF HENOCHE SHOENLEIN PURPURA IN FAMILIAL MEDITERRANEAN FEVER

**690** Menachem Shlesinger, Alan Rubinow and Peter A. Vardy (sponsored by Joel J. Alpert), Boston University School of Medicine, Department of Pediatrics, Boston.

Familial Mediterranean fever (FMF) is characterized by periodic attacks of fever and serositis, particularly peritonitis and synovitis. The disease is transmitted by an autosomal recessive gene and primarily affects Sephardic Jews, Arabs, Turks and Armenians. During the period 1970-1979 we observed seven children with FMF who developed Henoch-Shoenlein purpura (HSP). During this period 0.16% of 2140 pediatric admissions per year were due to HSP. From a pediatric FMF population of 70 patients an average of 23 (33%) were admitted annually and one (4.3%) had HSP each year. Pertinent clinical features at the time of HSP - age range 3-13 years (mean 7 years) males: females 5:2. All patients had non thrombocytopenic purpura, arthritis or arthralgia and fever. Five patients (70%) had diffuse abdominal pain and two boys had testicular pain and swelling. Four patients (56%) had hematuria and one proteinuria, only. The erythrocyte sedimentation rate ranged from 50-150 mm/hr (mean 88) and fibrinogen 208-660 mg/dl (mean 373 mg/dl). The duration of hospitalization ranged from 13-150 days (mean 51 days). The association of FMF and HSP, two diseases of unknown etiology may provide new avenues of study in these diseases.

PULMONARY PARAGONIMIASIS IN INDOCHINESE REFUGEE CHILDREN. S.T. Shulman, R. Yogeve, K. Burton and K. Boyer (spon. by Henry Nadler). Children's Memorial Hosp., Northwestern Univ., and Michael Reese Hosp., Chicago.

The high prevalence of tuberculosis in recent Indochinese refugees of all ages is well documented, with 100-fold greater prevalence in 5-14-year-olds compared to others in this age group in the U.S.A. However, other possible etiologies for chronic pulmonary disease must also be considered in such children. During a recent 12-month period, pulmonary paragonimiasis was diagnosed in three 8- to 11-year-old Laotian children living in the Chicago area. Clinical manifestations of illness included lack of fever or sweats, absent family history of TB, chronic cough for 2 weeks to 2 years, and apparent hemoptysis in 2 patients. Physical findings included rales and dullness to percussion (3/3), lack of respiratory distress (3/3), and clubbing (1/3). All patients showed interstitial pulmonary infiltrates on chest x-ray, while 2 had multiple small cystic areas. Moderate eosinophilia ranging from 5-13% (absolute counts from 770-1290/mm<sup>3</sup>) was present. *Paragonimus westermani* ova were found in stools of 2 patients. The etiology of pulmonary disease was established by demonstrating *P. westermani* ova in expectorated sputum (2) or bronchoscopic specimens (1). All patients were treated orally with Bithionol 50 mg/kg every other day for 15 doses, without side effects. Two patients demonstrated clinical and radiologic improvement; one was lost to follow-up. Clinicians must consider lung fluke infestation in refugee children who present with tuberculin-negative chronic pulmonary disease.

QUANTITATIVE COMPUTERIZED ANALYSIS OF HOUSESTAFF TRAINING. Frank A. Simon and Sherry Walker (Spon by R.R. Howell). Univ. of Texas Medical School at Houston, Hermann Hospital, Dept. of Pediatrics, Houston, Texas.

The larger number of Pediatric residents and the consequent relative decrease in patient population have made it more likely that a resident may not care for an adequate number of patients during his training. At the same time, increased departmental specialization may result in a biased selection of patients managed by a resident. We have developed a Fortran IV program for use with the CDC Cyber 171 computer that records the actual patient population for each resident during his general inpatient experience. The information is collected directly from the supervising residents and is verified with hospital admission and occupancy records. Each patient is listed by his primary diagnosis, chart number, age, sex, dates of admission and discharge and month of care. The patients are sorted by diagnosis providing a cumulative record of the number and variety of patients managed by each resident. The age distribution and daily patient load are calculated and charts are retrievable for a review. On our service, a PL-1 typically admitted 30 new inpatients a month and had a daily patient load of 8.4. A resident's individual record is compared to the total patient population of the inpatient service as constructed in this program. Deviations in experience from the complete service and obvious deficiencies are identified. Resident elective time is structured to compensate for these variations. The system is adaptable to register OPD, ER and nursery patients for similar analysis. This record of experience can be combined with monthly subjective faculty assessments and results of the ABP In-Training Examination to accomplish a thorough evaluation of each resident.

A DESIGN-EVALUATION MODEL FOR DIAGNOSTIC STUDIES. Edward N. Squire, James K. Todd. C. Henry Kempe Center for Investigative Pediatrics, The Children's Hospital; University of Colorado Health Sciences Center; Denver.

Diagnostic studies may suffer design deficiencies which obfuscate conclusions. A design-evaluation model was developed and validated to identify common errors. Thirty-five original research publications focusing on diagnostic testing were characterized for ultimate validity by independent editorial assessment. Each publication was evaluated for 31 elements of basic design, test technology, data analysis, and clinical application. Six biometricians ranked model items, of which 6 were considered critically important and the remainder conditionally important. Raw publication scores significantly ( $p < 0.001$ ) correlated with subsequent evidence substantiating or refuting study conclusions. In 25 correct publications, the overall model score mean was 0.79 (SD 0.08), as compared to 0.37 (SD 0.04) in 10 with incorrect conclusions. Fourteen individual model items present in the manuscripts were significantly associated with conclusion validity ( $p < 0.01$ ). The independent editorial assessment emphasized 12 of these individual items. This design-evaluation model can supplement expert assistance or personal experience in planning, conducting, or evaluating diagnostic studies. Journals which establish minimum design criteria might avoid publication of articles with potentially invalid conclusions.