tion. Radiographic plain-films did not show bony, articular, or osteomyelitis changes. An IV antibiotic was given and an incision and drainage was performed. After clinical improvement, the patient was discharged home from the ED with oral antibiotics and a referral to his primary physician. Exogenous opiates may mimic pathways by which endogenous opioids are involved in immune system regulation and it has been found that they suppress cell-mediated immunity. The macrophage/monocyte oxidative burst and phagocytosis are also impaired by opiates. Natural killer cell cytotoxicity may be reduced as well.

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EFFECT OF AROMATASE INHIBITION ON LIPIDS AND INFLAMMATORY MARKERS OF CARDIOVASCULAR DISEASE IN ELDERLY HYPOGONADAL MEN: A DOUBLE BLIND PLACEBO CONTROLLED RANDOMIZED TRIAL. R.H. Dougherty, J.L. Rohrer, D. Hayden, B.Z. Leder, Endocrine Division, Massachusetts General Hospital, Boston, MA

Background: Androgen replacement in elderly men with declining testosterone (T) levels is an increasingly common, though controversial, practice. Recently, aromatase inhibitors have been proposed as a novel method of increasing endogenous T production in elderly men but the effects on lipids and cardiovascular risk have not been defined. **Methods:** We randomized 37 hypogonadal men between the ages of 62-74 and T levels between 150-350 ng/dL to receive oral anastrozole (a potent aromatase inhibitor) 1mg daily, 1mg twice weekly, or placebo for 12 weeks. Serum levels of fasting lipids, C-reactive protein (CRP), interleukin-6 (IL-6), intercellular adhesion molecule-1 (ICAM-1), vascular cell adhesion molecule-1 (VCAM-1), and insulin sensitivity were assessed. **Results:** Anastrozole normalized testosterone (343 to 572 ng/dL at 12 weeks with daily treatment versus 344 to 344 ng/dL at 12 weeks with placebo, $p<0.001$) and decreased estradiol levels modestly at both doses. This intervention had no effect on fasting lipids, inflammatory markers (IL-6, CRP), adhesion molecules (ICAM-1, VCAM-1), or insulin sensitivity (homeostasis model assessment). There was, however, a significant positive correlation between changes in serum triglyceride and estradiol levels ($p=0.005$). **Conclusion:** Short-term use of the aromatase inhibitor anastrozole normalizes serum testosterone levels in elderly men with mild hypogonadism without adversely affecting lipids, inflammatory markers, or insulin resistance. Further studies are needed to assess the long-term effects of aromatase inhibitors on cardiovascular health.

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RECTAL CANCER MANAGEMENT: URBAN/RURAL CONTRASTS IN KENTUCKY. M. Hicks, M. McCafferty, T.E. Aldrich. University of Louisville, School of Public Health and Information Sciences, Louisville, KY

Rectal cancer represents a disease that has substantive surgical and adjuvant options. However, these are utilized conspicuously available differently between urban and rural residents. Patients that travel to urban centers for their care receive sharply different care and derive the associated beneficial outcomes. This paper examines the stage-at-diagnosis differences between rural-living and rural-treated patients. Similarly, the options for first course of treatment are studied between persons who receive their care locally, whether urban or rural, versus those who travel-to-care from rural areas to urban medical centers. The special impact for Appalachia is a notable posing intriguing ideas about cultural perspective for cancer risk and cancer care decisions. *Appreciation is extended to Dr. Tom Tucker and the staff of the KCR.*

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FAMILY STUDY OF AURICULO-CONDYLAR SYNDROME. I.M. Johnson,[1] G.E. Green,[2] C. Cunniff,[1] [1]Division of Medical and Molecular Genetics, Department of Pediatrics, University of Arizona College of Medicine, Tucson, AZ; [2]Division of Pediatric Otolaryngology, Department of Otolaryngology, University of Michigan, Ann Arbor, MI

Objective: Auriculo-condylar syndrome (ACS, OMIM 602483) is a rare craniofacial deformity syndrome caused by improper development of the first and second branchial arches. It is transmitted in an autosomal dominant manner. Deformities involve prominence of the ears, marked constriction between the lower and middle thirds of the pinna and abnormalities of the mandible including micrognathia. There is typically no hearing loss or abnormalities of the ossicles. However associations have been noted with an abnormal palate, hypotonia, and neurodevelopmental delay. In total, this defect results in impairment of breathing, eating, speech, and cosmesis. To date, only small families with parent-child transmission have been reported. Here we present a large family with four generations of affected individuals. Variable expressivity and penetrance are exhibited. Power analysis demonstrates that we have greater than a 95% chance of identifying a locus with a genome wide screen. A genome wide scan using Weber linkage markers has been initiated to identify potential loci involved in the pathogenesis of this syndrome.

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ETHNIC DIFFERENCES IN PARENT PREFERENCE TO BE PRESENT FOR PAINFUL MEDICAL PROCEDURES. M.M. Jones, M. Qazi, K.D. Young, Harbor-UCLA Medical Center, Torrance, CA

Background: Previous research has shown that parents want to be present if their children are undergoing painful procedures. No prior study has been specifically designed to investigate ethnic differences in parental preference. **Purpose:** To examine ethnic differences between Caucasian, African-American, and Hispanic parents in their desire to remain present for their children's painful medical procedures. **Methods:** A convenience sample of English-speaking parents from each of the three ethnic groups was surveyed regarding their preferences for remaining present for five hypothetical painful procedures: venipuncture, laceration repair, lumbar puncture, fracture reduction, and cardiac resuscitation. For each procedure, a short description of the procedure was read to the parent, and a picture of the procedure was shown. Parents were then interviewed regarding their preference to remain present or leave. **Results:** Complete data on 201 parents: 72 Hispanic, 63 Caucasian, and 66 African-American parents were obtained. The only significant demographic differences between groups were that Hispanic parents tended to be younger than the other two ethnic groups and African-American parents were more likely to have a college or graduate degree. Overall, the percent who wished to remain were 93.1% for venipuncture, 92.1% for laceration repair, 81.1% for lumbar puncture, 80.2% for fracture reduction, and 72.7% for cardiac resuscitation; there were no significant ethnic differences. African-American parents were less likely to want the physician to determine whether they could stay for a critical resuscitation than Caucasian parents; Hispanic parents fell between the other two groups. African-American parents were more likely to report wanting to be present for a critical resuscitation or fracture reduction because they believe their child wants them there than Hispanic parents; Caucasian parents fell between the other two groups. Parents who reported some college education or higher degree were more likely to want to be present for a critical resuscitation. Parents who were self-rated as more anxious before their children's procedures were less likely to want to remain present for a venipuncture. **Conclusions:** We found no ethnic differences in parents' desire to be present during their child's painful medical procedures. Overall, the vast majority of parents would prefer to remain present, even for highly invasive procedures.

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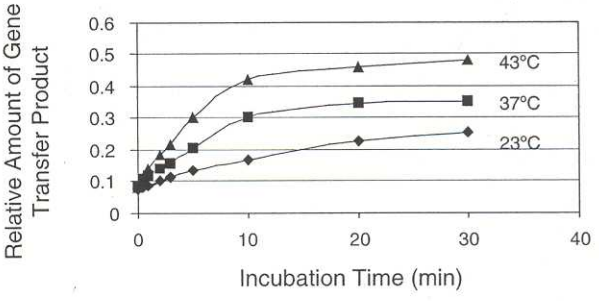
INCREASED AMBIENT TEMPERATURE ENHANCES HUMAN INTERLEUKIN-2 GENE TRANSFER INTO CULTURED MYOCYTES. H. Ma, C. Chi, G.S. Abela, Department of Medicine, Michigan State University, East Lansing, MI

Background: Several techniques are currently used to transfer genes into various cells, tissues and organs. Although gene therapy is a potential therapeutic approach for arterial restenosis and angiogenesis, the efficiency of transfection is low regardless of the technique used. **Methods:** Rat heart muscle cells were cultured in medium 199 with 10% FBS. Human interleukin-2 gene transfection was performed by calcium phosphate coprecipitation at various temperatures: 23°C, 37°C and 43°C. Interleukin-2 expression was detected using an indirect ELISA. **Results:** The heated cultured rat myocytes had a significantly higher expression of the transfected interleukin-2 gene. Ambient temperature rise to 43°C for up to 30 min provided greater transient transfection of the interleukin-2 gene when compared to ambient temperatures at 37°C and 23°C ($p<0.01$). The greatest effects occurred within 10 min of incubation and persisted up to 30 min. **Conclusion:** These results suggest that even a few degrees of ambient temperature rise can significantly increase gene transfer into muscle cells. This may be of value when using gene therapy with transfection procedures.



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CERVICAL ACID PHOSPHATASE AND PRESERVCYT®. N. Markovic, BioSciCon, Rockville, MD; O. Markovic, BioSciCon, Rockville, MD; J. Sundeen, Diagnostic Pathology Services, Clarksburg, MD; William Smith Jr, Department of Pathology, Suburban Hospital, Bethesda, MD

Objectives: Cervical acid phosphatase (CAP) – Papanicolaou test (CPT) has improved visibility of abnormal cervical cells on Pap smears and has improved detection of true positive/abnormal specimens in parallel with lowering the rates of false negative readings. We have explored whether the same benefit could be achieved on specimens collected in liquid. **Material and Methods:** Available cell preservative solutions contain alcohols that inhibit enzymes. In a prior study we have selected PreservCyt® ThinPrep Pap test solution as the least damaging to CAP. In a recent clinical trial we examined 360 cervical specimens collected in PreservCyt solution and processed (between three days and three weeks after sampling) with both ThinPrep Pap test and CPT. Specimens were split in two samples during the transfer of cells from the suspension onto microscopic slides. Results of both procedures were interpreted in Bethesda System terminology and filed as dichotomous results (Y/N abnormal specimen). At the end of the study, we compared results of screening the paired samples. **Results**: Enzyme inhibition was evident in specimens aged more than a week. Detection rate of abnormal specimens was highest (0.135) in the Early Test (T, within the first week of sampling) group, and lowest (0.091) in the Late Test (t, after ten days) group. Control group (C, PreservCyt) had a detection rate of 0.105 between these two extremes. Testing hypothesis revealed equivalence between Early Test and Control ($T-C)< 0.3C$, and between Control and Late Test ($C-t) < 0.2t$. Early testing was superior in comparison with the late testing ($T > t + 0.3t$). **Conclusion:** PreservCyt is an appropriate solution for collection of CAP-PAP specimens, but processing must be performed within one week after sampling. Extended storage time could be detrimental. New solutions, with less enzyme inhibitory components, or with enzyme protectors should be sought for.

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FAMILIAL GLIOMA AND CONGENITAL DYSERYTHROPOIETIC ANEMIA IN A LARGE SIBSHIP. M.E. Mealiffe, R.E. Person, M. Horwitz. Division of Medical Genetics, University of Washington, Seattle, WA

Gliomas are central nervous system (CNS) neoplasms derived from glial cells and can be a component of several uncommon but well-defined hereditary cancer predisposition syndromes including Li-Fraumeni syndrome, Hereditary Non-Polyposis Colorectal Cancer, Neurofibromatosis (NF) type 1, and NF2. Evidence from epidemiological studies also supports the existence of germline predisposing factors in families with clustering of gliomas that likely do not meet the criteria for the above known cancer predisposition syndromes. Here we describe an unusual, complex, and large four-generation pedigree in which 3 members of a sibship of 8 have to date been affected with glioma (glioblastoma multiforme [GBM], dx age 39; oligodendroglioma, dx age 49; oligodendroglioma, dx age 50). Other neoplasms of note in this pedigree include chronic lymphocytic leukemia (dx age 38) in the individual with GBM and also a CNS non-Hodgkins lymphoma (dx age 37) in a daughter of one of the apparently unaffected members of the sibship of 8. The family appears relatively unlikely, on clinical grounds, to have any of the known glioma predisposition syndromes.