



**Sinai-Grace Hospital**  
Detroit Medical Center / Wayne State University

**RESEARCH DAY, APRIL 7, 2005**  
**ABSTRACT SAMPLES**

**CASE REPORT**

**DIFFUSE METASTATIC CALCIFICATION:  
A CASE REPORT OF DIFFUSE  
EXTRAOSSEOUS CALCIFICATIONS IN A  
PATIENT WITH END STAGE RENAL  
DISEASE** John Smith, M.D., Mary Jane, M.D.  
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Metastatic calcification is a well known complication of end stage renal disease. Extraosseous calcifications may develop in any tissue. However, the most common are the lung, kidney and stomach. A review of the literature revealed that the extent of systems involved make this patient's calcinosis a reportable case. We report the case of a 28-year-old African American male who presented complaints of mental status change, shortness of breath and seizures. He had a known history of end stage renal disease secondary to diabetes mellitus Type 1 and had undergone renal transplant that had recently failed. At the time of presentation he was being managed with outpatient dialysis three times a week and medications included lansoprazole, calcium acetate, quinapril and diltiazem. Physical and laboratory examinations revealed abnormalities including a grossly obtunded mental status, large left antecubital mass, diffuse nodular scattered densities on the chest x-ray and a serum calcium of 12.7 mg/dl. The patient received aggressive saline hydration and intravenous pamidronate (60 mg) resulting in rapid improvement in his mental status. Eventual wedge resection of the lung nodules demonstrated diffuse interstitial calcifications with pleural thickening. At the time of discharge, the patient had returned to baseline mental status and was being referred for a sestimibi scan and possible parathyroidectomy. This is a case of diffuse extraosseous metastatic calcification involving the lung, subcutaneous tissue and multiple areas of skeletal muscle. Although metastatic calcification is a well recognized entity, we believe the number of systems involved in this patient is uncommon. This case also presents a forum for the discussion of the difficulties seen in treating patients with metastatic calcifications. At the present time most of the medical literature regarding therapy revolves around surgery or prevention.

**BASIC RESEARCH**

**EFFECTS OF COMBRETASTATIN A-3 AND  
PANCRITASTATIN ON NON HODGKINS  
LYMPHOMA CELL LINE,**  
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**INTRODUCTION:** Non Hodgkins Lymphoma (NHL) is a diverse group of lymphoproliferative disorders. At the present time, patients are treated with an induction regimen such as CHOP which cures about 40% of aggressive NHL. Here we report, the anti-tumor effects of Combretastatin A-3 (CA-3) and Pancritastatin two new natural agents on a panel of NHL cell line.

CA-3 is from a family of compounds isolated from the South African willow tree *Combretum caffrum*. Pancritastatin is an aromatic heterocyclic compound obtained from *Hymenocallis littoralis*.

**MATERIALS AND METHODS:** WSU- Diffuse Large Cell Lymphoma cell line was used for the experiment. Cell viability and total cell number of untreated and CA-3 & Pancritastatin treated cultures were determined daily for 4 days using trypan blue stain. Morphological analysis of untreated and CA-3 & Pancritastatin treated cultures was performed daily for 4 days and analyzed for features of apoptosis, mitotic catastrophe, death or viability. Cell cycle analysis of untreated and CA-3 & Pancritastatin treated cells was also performed.

**RESULTS:** CA-3 showed a concentration dependent growth inhibition on DLCL2 cell line. Most effective concentration used was 15nM. Morphological analysis revealed a slight increase in mitotic catastrophe. CA-3 induced dose-dependant increase in G2M in all cell lines. Pancritastatin showed a significant growth inhibition at 100nM. Morphological analysis did not reveal any increase in apoptosis/dead/mitotic cells at different time points. Cell cycle analysis showed that Pancritastatin induced an arrest in G0/G1 phase of cell cycle.