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Clinical History: Approximately 100 out of 240, 3-week-old backyard chicks died within a 2-week period without showing any clinical signs of disease. These chicks were purchased without a vaccination history at day 1 or 2 of life and were not vaccinated by the owner after purchase.

Necropsy Findings: On necropsy, 7 out of 7 chicks had swollen, pale kidneys. Ureters were filled and distended by tan, chalky material (Figure 1). Additionally, 1 out of 7 chicks had widespread deposition of white, chalky material in the pericardium (Figure 2).

Gross and microscopic images:

Figure 1

Figure 2
Follow-up questions: Please provide gross morphologic diagnoses (Figures 1 and 2), microscopic morphologic diagnoses (Figures 3 and 4), and possible cause(s).

*The Diagnostic Exercises are an initiative of the Latin Comparative Pathology Group (LCPG), the Latin American subdivision of The Davis-Thompson Foundation. These exercises are contributed by members and non-members from any country of residence. Consider submitting an exercise! A final document containing this material with answers and a brief discussion will be posted on the CL Davis website (http://www.cldavis.org/diagnostic_exercises.html).

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