high-volume, low-cost tests. Currently, the ADA procedure falls in
the low-volume category, and no one knows what influence man-
aged-care gatekeepers will have on future sample flow for this useful
diagnostic procedure(s). To achieve wide acceptance, I stressed the
low cost of the basic ADA analytic procedure. Dr. Gakis’ means for
the differential assay of ADA-1 and ADA-2 are not much more ex-
pensive and can be instituted easily in a routine laboratory so mo-
tivated.

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Pulmonary Hypertension and
Obstructive Sleep Apnea

To the Editor:

I am writing with regard to the recent “Pulmonary and Critical
Care Pearls” by Nancy A. Collop (April 1996).1 In particular, I take
exception with her first clinical pearl, which states, “Pulmonary
hypertension can occur in obstructive sleep apnea in the absence
of clinically significant lung disease.” First, this statement implies
that the patient presented had no clinically significant lung disease.
Given the abnormal pulmonary function tests (which show restric-
tive disease) and the abnormal arterial blood gas measurement
(which shows a chronic compensated respiratory acidosis in addi-
tion to the hypoxia), this patient likely has obesity-hypoventilation
syndrome, which I would consider a clinically significant pulmonary
disease. I would suggest that pulmonary hypertension (PH) de-
veloped first, secondary to the daytime hypoxemia related to the obes-
ity-hypoventilation syndrome and the nocturnal hypoxemia related
to the obstructive sleep apnea (OSA). Later, the hypoxemia wors-
ened when the mean pulmonary artery pressure became sufficient
to open the patent foramen ovale, resulting in shunt physiology. I
do not believe that this case is an example of PH secondary to iso-
lated OSA, as implied in this clinical pearl.

Second, the most recent study on the relationship between PH
and OSA by Chaouat and colleagues2 clearly showed that OSA is not
an independent risk factor for PH. This study, the largest series of
consecutive right heart catheterizations (220) in OSA, showed that
a low FEV1 and a high Pco2 were the primary determinants of PH.
This study differed from previous studies by the determination of
pulmonary capillary wedge pressures, thus enabling the authors to
rule out left-sided heart problems as the cause of the PH in patients
without lung disease. Based on this study, physicians should be wary
of ascribing PH to OSA alone and should undertake a pulmonary
or cardiac workup in patients with both entities.

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REFERENCES
1 Collop NA. Refractory hypoxemia in a morbidly obese 28-year-
old woman. Chest 1996; 109:1101-02
2 Chaouat A, Weizenblum E, Krieger J, et al. Pulmonary hemo-
dynamics in the obstructive sleep apnea syndrome: results in 220

To the Editor:

I disagree with Dr. Rowley’s statement that this patient had
significant pulmonary disease. I would argue that her lungs are
relatively normal; her restrictive lung disease is more related to her
obesity than to abnormal lungs. This is further supported by the fact
that her diffusion corrected for alveolar volume is normal. Obesi-
ty-hypoventilation syndrome is not a “lung” problem, it is a prob-
lem of an abnormal ventilatory drive. I would further argue that this
patient’s obstructive sleep apnea (OSA) is the major cause of her
hypoxemia and hypercapnia, because both improved following
treatment.

With regard to the second point, I do not believe that the article
by Chaouat and colleagues2 excludes the possibility that OSA can be a primary
cause of pulmonary artery hypertension (PH). The authors state that
the presence of PH was linked to an obstructive ventilatory defect.
Our patient did not have obstructive lung disease. She was indeed
obese, however. The contribution of obesity to the PH is mentioned
in the article, but clear conclusions are not made. Again, I would
point out that this patient’s PH was significantly improved only with
treatment of her OSA, suggesting that other causes for her PH are
unlikely.

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1 Collop NA. Refractory hypoxemia in a morbidly obese 28-year-
old woman. Chest 1996; 109:1101-02
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dynamics in the obstructive sleep apnea syndrome: results in 220