

# The incidental pulmonary nodule: an impetus for guidelines

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Sir,

Every couple of months for the last several years, I find myself in a quandary about what to recommend for solitary and multiple non-calcified pulmonary nodules incidentally found on a pediatric chest CT exam. I am not speaking of those CTs ordered in the setting of pediatric oncology, but the occasional CT ordered by our referring clinicians for the workup of symptoms such as chronic cough. All too often, I find small (less than 1 cm) incidental nodules. Every fiber of my being screams that these are benign and of no clinical significance. However, sticking to the mantra of evidence-based medicine, I dutifully search the literature for articles or guidelines that tell me how these should be followed. I have not found any paper or guideline providing direction.

For nearly a decade now, our adult colleagues have had guidelines published by our esteemed thoracic radiology leaders in the Fleischner Society [1]. There are size criteria and recommendations for follow-up imaging for the incidentally detected non-calcified pulmonary nodule. However the society did make one caveat: the guidelines only apply to individuals older than 35 years. In fact, a follow-up study by Feely and Hartman [2] found that the criteria were inappropriately used in 4% of cases for patients younger than 35 years [2]. However, if there is no guidance available in the literature can any of us blame other radiologists in today's medico-legal environment for using the Fleischner guidelines rather than making up some arbitrary means of follow-up or simply dismissing the findings?

Most pediatric radiologists are likely aware that incidental non-calcified pulmonary nodules, in the absence of known

malignancy, are almost certainly benign in children. Furthermore what concerns adult imagers and not us (pediatric radiologists) is primary lung malignancy, which is exceedingly rare in those younger than 35, representing less than 1% of all cases. This fact was generally addressed in the Fleischner Society paper, which states that it is reasonable to follow up these incidental nodules with a CT in 6–12 months [1]. Does this suffice? There is no evidence to support or refute it. Also, would a general radiologist who almost certainly interprets more adult CTs than pediatric ones be more likely to use the Fleischner criteria in a child? Again, one cannot be sure.

In the end, we will most likely not have studies with sufficient numbers of individuals to prove the benignity of incidental pulmonary nodules in children. For one, most of us likely do not follow them, at least not to the level performed in adults. Second, we have an ethical imperative to keep radiation doses low in our children. A prospective study would be something few of us would like to undertake. Therefore, we are back to what I have searched for over the years, i.e. guidelines. Is it time for us to come together as a society to develop a standard to follow in children? I think the answer is likely yes.

**Conflicts of interest** None

## References

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