Figure 1 Abdominal bulge that became even more apparent with increased intra-abdominal pressure.

have dissipated. A reasonable conclusion is that this 'bulge' was secondary to motor blockade of the regional abdominal wall muscles. The patient was discharged home without further events and was asked to return to the hospital if the bulge persisted in the first postoperative day. The patient had no issues overnight, and upon awakening the next morning, the bulge had disappeared, with no further evidence of abdominal wall motor blockade noted. During the postoperative surgical visit, the hernia repair was found to be well healed and without complication.

No similar finding following TAP blockade has been previously reported in the literature. This finding is unique and anesthesiologists should be aware of especially in children with underdeveloped abdominal muscles in the setting of a TAP block performed with relatively high doses of local anesthetic. This case highlights the importance of assessing abdominal weakness in children following TAP block. Moreover, it is imperative to assure patients and parents that should motor blockade of the abdominal wall muscles occur following a TAP block, a conservative approach of reassessing the resolution of abdominal wall weakness as the block wears off is acceptable to avoid unnecessary investigations or overnight admissions.

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Simplified table to identify overweight and obese children undergoing anesthesia

Sir—Overweight and obesity (indicated by high body mass index (BMI)) are increasingly prevalent among children undergoing surgery and anesthesia, a natural consequence of the secular trend in the obesity epidemic (1). Given that children with high BMI have increased rates of some perioperative complications (2), it is essential to identify those who are overweight/obese during the preoperative assessment and to evaluate them for obesity-associated health problems such as bronchial asthma, obstructive sleep apnea, and gastro-esophageal reflux disease (3).

Table 1 Simplified sex-specific BMI table for identifying children who are overweight or obese

	Body mass index (Kg·m^{-2})			
	Male		Female	
Age (year)	Overweight	Obese	Overweight	Obese
2	18.1	19.3	18.0	19.1
3	17.3	18.2	17.1	18.2
4	16.9	17.8	16.8	18.0
5	**16.8**	**17.9**	**16.8**	**18.2**
6	16.9	18.3	17.0	18.8
7	17.4	19.1	17.6	19.6
8	17.9	20.0	18.3	20.6
9	18.6	21.0	19.1	21.8
10	19.3	22.1	19.9	22.9
11	20.1	23.2	20.8	24.1
12	**21.0**	**24.2**	**21.7**	**25.2**
13	21.8	25.1	22.5	26.2
14	22.6	26.0	23.3	27.2
15	23.4	26.8	24.0	28.1
16	24.2	27.5	24.6	28.9
17	24.9	28.2	25.2	29.6
≥18	25.0	30.0	25.0	30.0

BMI, body mass index.

BMI values derived from the 2000 BMI table published by the Centers for Disease Control and Prevention, Atlanta, Georgia.

Values in bold indicates that any preschool age child (aged 2–5 years) with BMI > 20 kg·m^{-2} is classifiable as obese; any school age child (aged 6–12 years) with BMI > 25 kg·m^{-2} is classifiable as obese.

Unfortunately, although many pediatric anesthesia units regularly measure height and weight as part of preoperative assessment, and some centers routinely compute children's BMI, it is unclear whether pediatric anesthesia caregivers are conversant with BMI tables and growth charts used to accurately classify children's obesity status. Indeed, it is conceivable that very few pediatric anesthesia caregivers have ready access to the CDC BMI chart, and it is unlikely that they would be willing or able to refer to this chart in order to classify children's obesity status during a busy preoperative interview. Indeed, a recent impromptu survey at the winter 2013 meeting of members of the society for pediatric anesthesia (SPA) indicates that only about 38% of respondents have access to electronic information system that computes BMI data.

One of the possible obstacles to routine pediatric screening for overweight/obesity is that, unlike in adults, weight status in children is not based on single cutoff values but is based on sex-specific BMI percentiles (1). It is therefore necessary to calculate a child's BMI and either plot the value against published BMI percentile chart or compare the value with a BMI reference table. However, many primary care physicians consider the additional task of calculating BMI and plotting the value on a growth chart a cumbersome undertaking (4).

Although sex-specific BMI charts and tables are freely available on the CDC Web site, the tables are not user friendly because they contain hundreds of data points. Specifically, each sex-specific BMI table contains 1820 data points for children aged 2–17 years (3640 for both sexes). In this report, we propose a simplified table to accurately and quickly classify children as overweight or obese during the preoperative assessment, using published BMI data from the CDC table.

Methods

Data for the present report were derived from the age- and sex-specific BMI tables available on the CDC Web site at http://www.cdc.gov/growthcharts. Because many pediatric hospitals care for children up to 17 years of age, we restricted the present analysis to children aged 2–17 years. The table columns represent data points of 10 BMI percentiles representing the 3rd, 5th, 10th, 25th, 50th, 75th, 85th, 90th, 95th, and 97th percentiles. The rows represent ages in half-monthly increments. For the present report, we converted age in months to age in years; for instance, for a 3-years-old child, we chose BMI data corresponding to 36.5 months. To develop our simplified classification table, we chose the BMI values corresponding to each age category at the 85th and 95th percentile level for overweight and obesity, respectively (5).

Results

The proposed streamlined BMI screening table is displayed in Table 1. This shortened high BMI table reduces the columns in the CDC version from ten to four and the rows per year from 14 to one. Consequently, the data points in the two sex-specific BMI tables published by the CDC were reduced from 3640 to 64. Our proposed screening table is therefore easier to use and could be easily produced into handheld plastic cards or posted on clinic walls for easy reference. Our proposed table could further be summarized thus any preschool age child (aged 2–5 years) with BMI $\geq$ 20 kg·m^{-2} is classifiable as obese; any school age child (aged 6–12 years) with BMI $\geq$ 25 kg·m^{-2} is classifiable as obese; and any young adolescent (aged 13–18 years) with BMI $\geq$ 25 kg·m^{-2} is classifiable as overweight or obese.

With the continuing adoption of electronic perioperative information system (17), many of which can be configured to calculate BMI and give physician-specific feedback (18), our proposed table can be printed and posted on clinic walls or produced as small plastic cards for easy reference. Furthermore, our proposed table has the potential to encourage perioperative caregivers to 'invest in the extra effort' needed to calculate a child's BMI if it is clear that there is a simple reference table that can be used to accurately classify a child as overweight or obese. The table we propose could also make it easy to write syntaxes for classifying children into BMI groups during data analysis related to childhood obesity research.

Conclusion

This abridged screening table can be used to quickly and accurately categorize children who are overweight or obese in a busy preoperative setting or in any pediatric care location where the CDC BMI chart is unavailable or impractical to use.

Conflict of interest

The authors have no conflict of interest to declare. No external funding other than local departmental resources used for this report. IRB with waiver of consent (use of public data). Application Number: HUM00077219.

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Awareness in children and the auxiliary fresh gas flow outlet switch – another significant problem

Sir—We would like to report five near miss awareness incidents in children anesthetized for minor procedures that happened on forgetting to redirect the fresh gas flow from T piece to compact rebreathing system (COSY) using the auxiliary fresh gas flow outlet switch when either Drager Fabius MRI or Fabius GS Premium machines were used.

Children were induced using a modified Ayre's T piece on a Drager Fabius MRI or Fabius GS Premium anesthetic machines. After commencing standard monitoring and obtaining intravenous access, either a laryngeal mask or oral endotracheal tube was inserted. The patients were then connected to COSY and were either breathing spontaneously or were mechanically ventilated. Adequate ventilation was confirmed by presence of good chestwall expansion, normal endtidal carbon-dioxide trace, normal oxygen saturation, and adequate movement of the reservoir bag or the bellows depending on the mode of ventilation. After about 2 min, we noticed that the endtidal sevoflurane concentration was low at 0.9%. We checked to ensure that the vapourizer had sufficient sevoflurane in it and had been dialed to at least 2.5%. We then noticed that the lever used to switch fresh gas flow between Ayres T piece system and COSY system was still on Ayres T piece mode. The desired endtidal sevoflurane concentrations were rapidly achieved on flipping the switch to COSY mode and increasing the fresh gas flow rates.

A near miss awareness incident has been reported previously due to disconnection of the reservoir bag from the circuit in an adult patient (1). Such incidents have happened due to deficiency in the design of anesthetic machines combined with active human errors during the user – machine interaction.

In the above-mentioned machines, 'the air entrainment safety feature' is a design improvement to prevent hypoxia. Although this feature may prevent hypoxia,