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LETTER TO THE EDITOR

Estimating the correct way of calculating the carboplatin dose

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Holweger et al. [1] calculated carboplatin administered dose by a modified Calvert formula, whereas GFR was substituted by CrCl via 24-h urine collection or calculated by Jelliffe. We do not know how many patients were dosed with 24-h urine collection or with Jelliffe formula in this study. Observed the measured AUC results (5.8 ± 1.1 mg/ml × min) and the predicted AUC with 24-h urine collection estimation (4.8 ± 1.1 mg/ml × min), it is probably that most patients were dosified using this estimation.

Authors' algorithm and Jelliffe formula are both the most exact formulas, with predicted AUC similar to measured AUC. However, there are some differences in the resources that are necessary for the development of both tests. To use MDRD-6 formula, that is included in authors' algorithm, we need to know serum creatinine, age, sex, ethnicity, blood urea, albumin, and BSA. Jelliffe formula does not require to know ethnicity, blood urea, and albumin, so it could be an easier usage formula with similar results in carboplatin dosage. In addition, it would be interesting to know the results of the prediction using the simplified MDRD-4 IDMS formula, which does not need albumin and blood urea values [2].

Calvert formula was developed by using isotopic ^{51}Cr-EDTA method to estimate GFR [3]. Romero et al. [4] compared, using Calvert formula, ^{51}Cr-EDTA method to estimate GFR with Cockcroft-Gault, MDRD-4 IDMS, and Wright formula. In this study, which included 290 patients, the best method to estimate GRF was Cockcroft-Gault. In Holweger et al. study [1], the Cockcroft-Gault estimation in obese patients was carried out using the actual body weight. It is known that when actual body weight is used, in patients with BMI > 30 kg/m^2, it can conduce to overdosification. In this case, it is recommended to use the ideal or adjusted body weight to apply the Cockcroft-Gault formula [5]. When we use the adjusted body weight in the Cockcroft-Gault estimation for the six obese patients included in the study (Table 1), the calculated ClCr is 76 ml/min (SD = ±17). It is probably that this change in the Cockroft-Gault estimation could correct some bias that explains the difference between oGFR (63 ± 20 ml/min) and eCrCl (Cockcroft-Gault) (75 ± 23 ml/min).

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Table 1 Differences between real and adjusted body weight (ABW) Clcr estimation in obese patients included in Holweger et al. study

Patient	Sex	Age (years)	Weight (kg)	BMI (kg/m^2)	SCr (μmol)	eClcr (CG) (ml/min)	eClcr ABW (CG-ABW) (ml/min)	eClcr carboplatin calculated dose (mg)	eClcr ABW carboplatin calculated dose
1	F	69	90	36.1	98	69	50	465	375
2	F	65	84	30.5	80	83	66	534	457
3	F	57	79	30.9	80	56	68	550	464
4	F	56	90	33.5	71	111	85	676	551
5	F	47	103	37.8	80	125	91	746	580
6	F	53	90	30.1	71	115	94	696	597
Mean		58	89	33.1	80	93	76	611	504
SD		8	8	3.3	10	28	17	101	78

BMI body mass index, *SCr* serum creatinine, *CG* Cockcroft-Gault, *CG-ABW* Cockcroft-Gault using adjusted body weight

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