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Correction to my paper: “Commutative semi-primary  $x$ -semigroups”

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CORRECTION TO MY PAPER  
COMMUTATIVE SEMI-PRIMARY $x$ -SEMIGROUPS\*)

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As pointed out by my colleague J. KOSTRA, Lemma 2 is stated incompletely in the quoted paper. It should read:

**Lemma 2.** (Aubert [1]). *Let a given  $x$ -system be of finite character. Then the radical of an  $x$ -ideal  $A_x$  is the intersection of all prime  $x$ -ideals containing  $A_x$ .*

Since the conclusion of Lemma 2 is not true in general, in some places our reasoning must be corrected. Nevertheless, it remains true if  $S$  is semi-primary, that is in the case which is the subject of study of our paper. However, the following corrections should be made:

- (i) The sentence beginning in the line 15 on page 468 should read: The radical of  $\Omega_x$  is the set of all nilpotent elements in  $S$  and according to Lemma 2 it equals the intersection of all prime  $x$ -ideals in  $S$  provided its  $x$ -system is of finite character.
- (ii) Theorems 3 and 5 should read:

**Theorem 3.** *Let  $S$  be an  $x$ -semigroup. Let us assume:*

- (1)  *$S$  is a semi-primary  $x$ -semigroup.*
- (2) *Every principal  $x$ -ideal of  $S$  is semi-primary.*
- (3) *Prime  $x$ -ideals of  $S$  form a chain.*
- (4) *The radicals of all  $x$ -ideals in  $S$  form a chain.*

*Then the following implications hold: (1)  $\Rightarrow$  (2)  $\Rightarrow$  (3), (1)  $\Rightarrow$  (4), (1)  $\Rightarrow$  (3), (4)  $\Rightarrow$  (3). If, moreover,  $S$  is equipped with an  $x$ -system of finite character, then statements (1), (2), (3) and (4) are mutually equivalent.*

**Theorem 5.** *A sufficient condition for an  $x$ -semigroup equipped with an  $x$ -system of finite character to be semi-primary is that for any two  $x$ -ideals  $A_x$  and  $B_x$  there is an integer  $n$  (depending on  $A_x$  and  $B_x$ ) with  $A_x^n \subseteq B_x$  or  $B_x^n \subseteq A_x$ .*

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\*) Czechoslovak Math. J. 27 (102), (1977), 467–472.