Role of Prolactin in Human Reproduction

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Preface

Recently, prolactin has been widely recognized as being as important a hormone as gonadotropin in the field of human reproductive endocrinology. The development of a method for measuring serum prolactin levels and the availability of a potent dopamine agonist, bromocriptine, have brought about great progress in the treatment of prolactin-related infertile women. Apparently, bromocriptine is effective on hyperprolactinemic ovulatory
disturbances. In addition, recent studies have revealed that bromocriptine is also effective on normoprolactinemic infertile women with anovulation or inadequate luteal phase. However, the question remains open as to how bromocriptine exerts its effects and how prolactin levels are linked to gonadal function.

To address these questions the normal range of prolactin levels and factors affecting them should first be determined. Secondly, the concept of normoprolactinemic infertility should be clarified. In conjunction with this, we have to clarify the equivocally defined clinical entities including latent hyperprolactinemia, transient hyperprolactinemia, etc. Thirdly, the mechanism that impairs gonadal function by excess prolactin levels should be determined. The possible sites of action of elevated prolactin are currently considered to be both hypothalamo-pituitary and ovary.

However, no conclusive information has so far been obtained. Apart from the clinical aspects of prolactin, elucidation of the physiological roles of prolactin in human reproduction may help us consider the mechanism of gonadal dysfunction associated with prolactin. However, little is known concerning the roles of prolactin in human reproduction. At present, the obvious role of prolactin in humans is to evoke and maintain lactation. Therefore,

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further studies are required on the physiological role of prolactin in the human reproductive phenomena. I believe that this monograph will serve as an important contribution to the issues discussed above.

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