

Cortical connections of the anteromedial extrastriate visual cortex in the rat

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Efferent and afferent connections of the visually responsive cortex (area anteromedial, AM) located in the anterior portion of area 18b were studied with degeneration and horseradish peroxidase (HRP) methods following small lesions and HRP injections into this area. Degenerating axons, terminals and retrogradely HRP-labeled neurons were observed in a broad region of the cortex including areas located lateral, medial and anterior to the striate cortex. The main finding of this study is that connections of area AM with area 18a are distributed in discrete patches whose arrangement is similar to that of the lateral extrastriate visual areas postulated in previous physiological and anatomical reports. These results thus suggest that visual area AM is reciprocally connected with visual areas in area 18a. Area AM is also connected with other regions within area 18b, thus supporting the notion advanced by recent studies that area 18b contains more than one visual area. A weak afferent connect