Zbl 107.26601
Erdős, Pál; Prachar, K.
Sätze und Probleme über p^k/k.
Theorems and problems on p^k/k. (In German)
Abh. Math. Semin. Univ. Hamb. 25, 251-256 (1962). [0025-5858]
The main result is the following: if p_k stands for the kth prime, then $c_1 \log^2 x \leq \sum_{p_k \leq x} \left| \frac{p_{k+1}}{k+1} - \frac{p_k}{k} \right| \leq c_2 \log^2 x$ with some positive constants c_1, c_2. The proof is elementary and appeals only once to an estimate obtainable by Brun's method.
S.Knapowski

Classification:
11N05 Distribution of primes
00A07 Problem books