Evidence Update

Child Health Series

April 2004

Does albendazole improve the control and treatment of filariasis?

There is not enough evidence to confirm or refute whether albendazole, given alone or co-administered with DEC or ivermectin, has an effect on lymphatic filariasis.

Inclusion criteria

Studies:

Randomised, and quasi-randomised controlled trials, including trials randomised by cluster.

Participants:

People with filarial infection (defined as microfilariae parasites or filarial antigens in the blood; or adult worms in lymphatic vessels detected by ultrasound); or communities resident in endemic filarial areas.

Intervention:

Albendazole versus placebo. Albendazole + DEC versus DEC alone. Albendazole + ivermectin versus ivermectin alone.

Outcomes:

Microfilaraemia; live adult worms detected by ultrasound; measures of filarial antigen.

Any adverse events that prevent daily activities or require hospitalisation; systemic adverse events.

Results

Four small studies met the inclusion criteria (2473 participants, of whom 536 had detectable microfilariae). Two were adequately concealed.

- The two placebo-controlled studies demonstrated no effect of albendazole on microfilaraemia (RR 0.97, 95%Cl 0.87 to 1.09, n = 195).
- Two studies compared the effect of albendazole plus ivermectin to ivermectin alone on the presence of microfilaraemia. Results were mixed: one study showed the combination to be more effective (RR 0.27, 95% Cl 0.11 to 0.70, n = 52), but the other did not demonstrate a statistically significant difference (RR 1.04, 95% Cl 0.87 to 1.25, n = 145).
- One study compared albendazole plus DEC to DEC alone and did not demonstrate a difference in microfilaraemia prevalence (RR 1.57, 95% CI .44 to 5.60, n = 3 5).



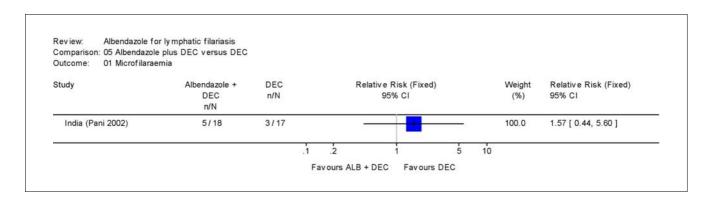


Adapted from International Filariasis Review Group (David Addiss, Julia Critchley, Henry Ejere, Paul Garner, Hellen Gelband, Carrol Gamble). Albendazole for lymphatic filariasis (Cochrane Review). In: The Cochrane Library, Issue 1, 2004. Chichester, UK: John Wiley & Sons, Ltd.

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Review:	Albendazole for lymphatic filariasis 01 Albendazole versus placebo 05 Microfilaraemia in participants microfilariae positive at baseline (microfilariae negative excluded)									
Comparison:										
Outcome:										
Study		Albendazole	Placebo	RR (fixed)				RR (fixed)		
or sub-categor	У	n/N	n/N			95% CI			95% Cl	
Ghana (Dunyo 2000)		62/71 22/29	62/66 20/29					0.93 [0.83, 1.04]		
Haiti (Beach 1999)						1.10 [0.80, 1.51]				
Total (95% Cl)		100	95			-			0.97 [0.87, 1.09]	
Total events: 84	4 (Albendazole), 8	2 (Placebo)				224-22				
Test for hetero	geneity: Chi ² = 1.2	0, df = 1 (P = 0.27), l ² = 16.	5%							
Test for overall	effect: Z = 0.52 (I	° = 0.60)								
				0.5	0.7	1	1.5	2		
				Favou	rs albenda	zole Fav	ours placeb	0		

Review: Albendazole for lymphatic filariasis Comparison: 03 Albendazole plus ivermectin versus ivermectin 05 Microfilaraemia in participants microfilariae positive at baseline (microfilariae negative excluded) Outcome: ALB + IVER IVER Relative Risk (Random) Weight Relative Risk (Random) Study n/N 95% CI 95% CI n/N (%) 1.04 [0.87, 1.25] 58/75 52/70 Ghana (Duny o 2000) 54.9 Haiti (Beach 1999) 0.27 [0.11, 0.70] 4/24 17/28 45.1 Total (95% CI) 62/99 100.0 0.57 [0.13, 2.48] 69/98 Test for heterogeneity chi-square=9.46 df=1 p=0.0021 Test for overall effect=-0.75 p=0.5 2 5 10 1 1 Favours ALB + IVER Favours IVER



Reviewer's conclusions

Implications for practice:

Data are limited. There is insufficient evidence to confirm or refute that albendazole has any effect alone or in combination against microfilaraemia.

Implications for research:

Further large well-designed studies are required.

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